AUGUST 1, 1949

MODERN MEDICINE

The Journal of Diagnosis and Treatment

What Can Be Done for the Hay Fever Patient? *(see page 47)*

Complete table of contents page 10

Dr. Albert V. Stoesser *(see page 10)*

A good night's rest
A good day's work

Allergic patients get both, with just 4 small doses

Comfort 'round-the-clock for your allergy patients . . . Decapryn provides long-lasting relief with low milligram dosage.

"Symptoms were relieved from 4 to 24 hours after the administration of a single dose of Decapryn—"[1]

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1. Sheldon, J. M. et al: Univ. Mich. Hosp. Bull. 14:13-15 (1948). 2. MacQuiddy, E. L.: Neb. State M. J. 34:123 (1949)

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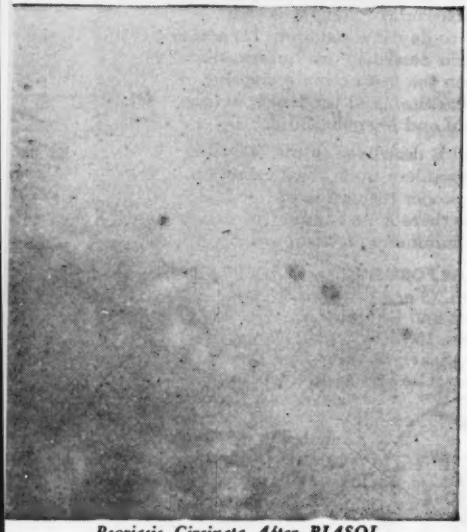
1 Council on Pharmacy and Chemistry: J.A.M.A., *135*:224. (Sept. 27) 1947.

Psoriasis Circinata Before RIASOL



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20 mg. per fluidounce
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MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

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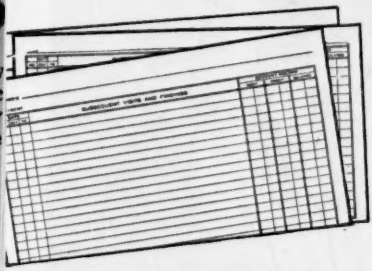

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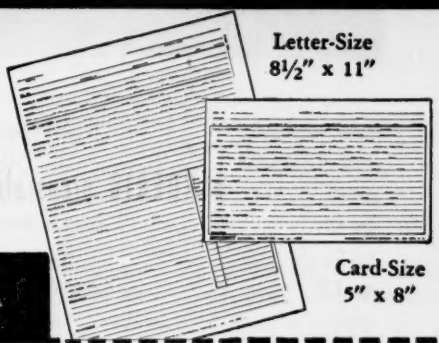

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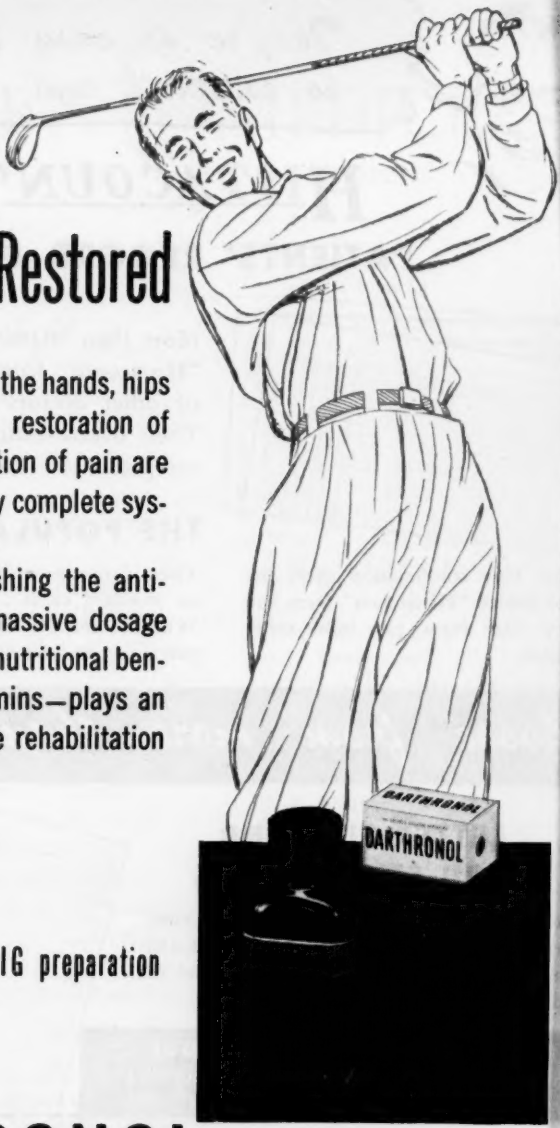

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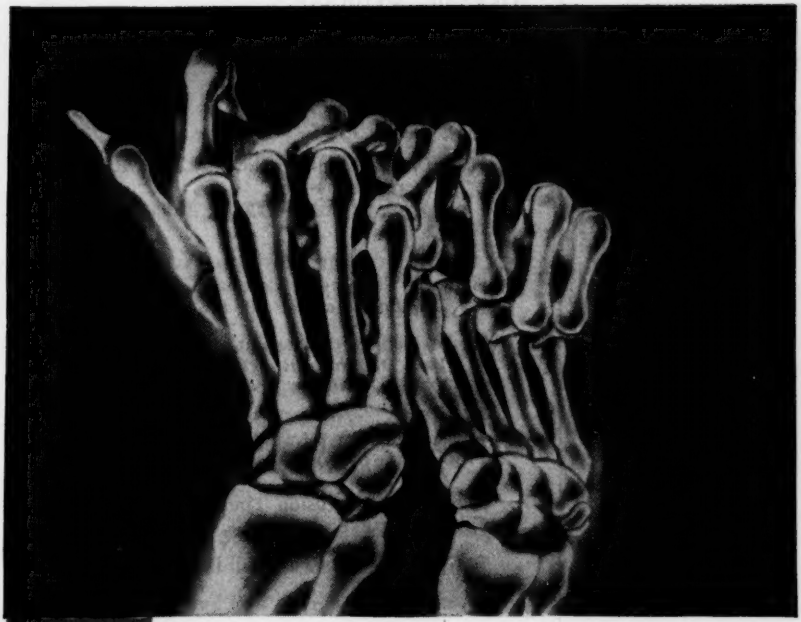
FOR THE ARTHRITIC



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d-alpha Tocopherol Acetate	2.4 mg.

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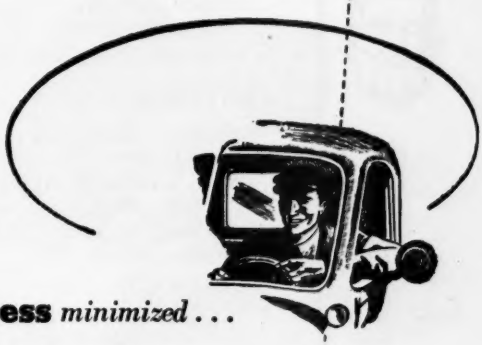
THE MAN ON THE COVER against a background of pollen-bearing greenery is Dr. Albert V. Stoesser, director of Allergy Clinics at the Minneapolis General and the University of Minnesota Hospitals, Minneapolis. In addition to his practice he has been teaching at the University of Minnesota Medical School for the past twenty years. A pediatrician whose interests have led him to become an allergist, he is active in several associations of pediatricians, allergists, immunologists, and pathologists. Dr. Stoesser is author of the Special Article, "What Can Be Done for the Hay Fever Patient?" on page 47.



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allergic patients remain alert . . .

Clinical reports describing the use of Thephorin in 2564 patients with hay fever and other allergies indicate an incidence of drowsiness of only 2.92%. In contrast with other antihistamines, Thephorin can therefore be given to motorists and other patients who have to remain alert. Highly effective and well tolerated in most cases, Thephorin is available in 25-mg tablets and as a palatable syrup which permits convenient adjustment of dosage.

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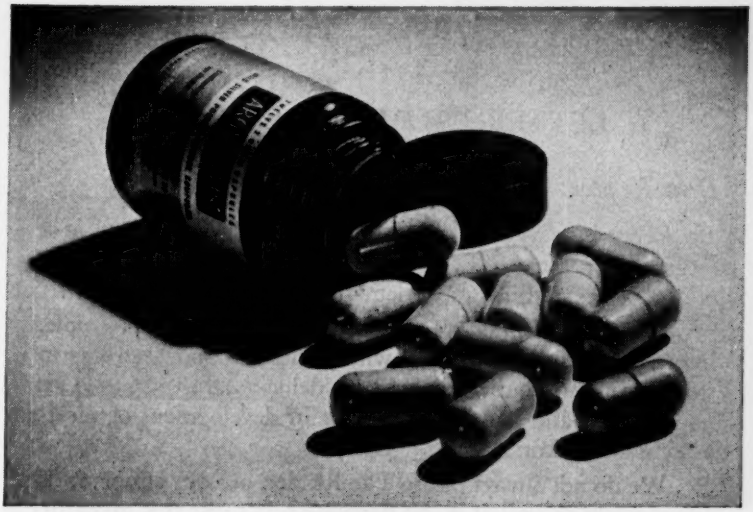

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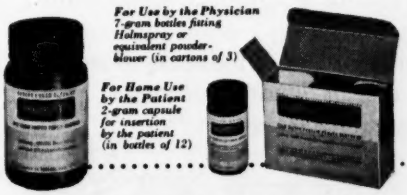
. . . according to published report of Reich, Button and Nechtow, "Treatment of Trichomonas Vaginalis Vaginitis," *Surgery, Gynecology and Obstetrics*, May, 1947, pp. 891-896.*



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LETTER FROM THE EDITOR

Dear Reader:

Every item you read in MODERN MEDICINE is aimed at a target which we call The Reader. The Reader is a composite of all doctors and is a most demanding gentleman.

He wants accurate information quickly. He wants simple, interesting language without windy rhetoric, and he wants to stop reading when the data has been delivered. He puts up with no nonsense and is a leading factor in development of ulcers among our editorial staff.

We do not always please The Reader, but our efforts to do so are never ending. It is this devotion to a cause that gives distinction to the reports in MODERN MEDICINE.

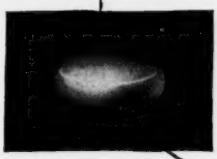
A change of pace is provided in our Correspondence section. There *the readers* take over. There you have your say and write what you will. You praise, criticize, and condemn. Sometimes you tell about an unusual case or a project close to your heart. Sometimes you ask for advice, sometimes you give it.

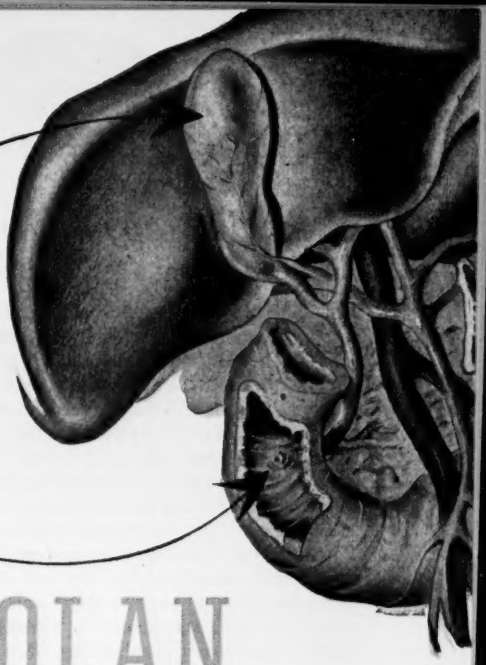
One doctor in Chicago was hypersensitive to noise. The issue containing his letter was hardly in the mail before *the readers* picked up their pens. All suggestions were relayed to the Chicago physician, who was most grateful. A similar response greeted the plea of a Florida practitioner with Parkinson's syndrome.

When a Chinese medical library asked for books to replace those destroyed by war, you sent in hundreds of tomes.

Not all contributions have been in a serious vein. The matter of the proper Chinese term for constipation was a challenge. Your response was even more terrific than your puns.

a complete gallbladder drug regimen in a single tablet





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(A BRAND OF DEHYDROCHOLIC ACID COMP.; PHENOBARBITAL AND HOMATROPINE METHYLBROMIDE, P.-M. CO.)

FOR NONCALCULOUS BILIARY-TRACT STASIS

Formula: Each tablet of Neocholan contains:

Dehydrocholic Acid Comp., P.-M. Co.	265 mg. (4 grs.)
Dehydrocholic Acid	250 mg. (3 3/4 grs.)
Phenobarbital	8.0 mg. (1/8 gr.)
Homatropine Methylbromide	1.2 mg. (1/50 gr.)

Rationale: Neocholan exerts two distinct actions:

1 . . . Hydrocholeresis—the dehydrocholic acid content stimulates the liver to secrete a greatly increased flow of thin, free-flowing bile, thereby tending to flush the biliary ductal system.

2 . . . Sphincter Relaxation—homatropine methylbromide and phenobarbital combine to assure sphincter relaxation so that the bile may discharge freely into the duodenum.

Neocholan, therefore—used in conjunction with appropriate dietary measures— provides the complete gallbladder regimen in a single tablet.

For increased efficiency, ease of administration and economy—

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SUPPLIED IN BOTTLES OF 100 TABLETS

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DIVISION OF ALLIED LABORATORIES INC., INDIANAPOLIS 6, INDIANA

AN IMPORTANT NEW MILESTO

in the Therapy of Arthritic Affections . . .

The "cure of [rheumatic fever]", agree most authoritative sources,[2,3,5,6] "depends not only on reaching, but also on maintaining a high plasma salicylate level."[5] The correlation between such blood levels and symptomatic improvement is graphically shown in the table at the right.[6]

Pabalate—latest product of Robins' research—now helps to achieve and maintain *higher salicylate blood levels on lower salicylate dosage.*

This is made possible by the combination in Pabalate of non-toxic para-aminobenzoic acid with sodium salicylate. As visualized in the chart at the lower right,[4] para-aminobenzoic acid (itself an active antirheumatic)[7] manifests a reciprocal action with salicylates when administered concurrently—sharply increasing the blood salicylate levels (under constant salicylate dosage),[1,4] and in turn having its own blood levels effectively enhanced.[4]

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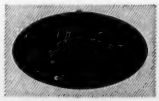
30-40 mg.	RETURN TO NORMAL CLINICAL SYMPTOMS SUBSIDE

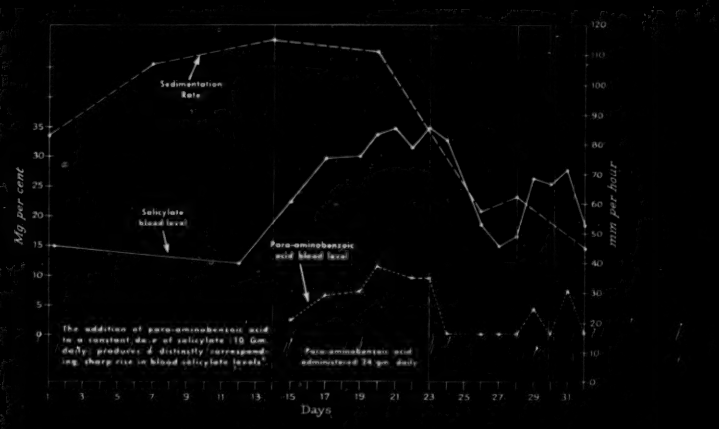
indications: Rheumatoid arthritis; acute rheumatic fever; fibrositis; gout; osteo-arthritis.
dosage: Two or three enteric coated tablets every three or four hours, without sodium bicarbonate.
formula: Each enteric coated tablet contains: Sodium salicylate, U.S.P. (5 gr.), 0.3 Gm.; Para-aminobenzoic acid (as sodium salt), (5 gr.), 0.3 Gm.
supplied: In bottles of 100 and 500 enteric coated tablets.

For high salicylate blood levels on low salicylate dosage—

Pabalate®

Pabalate tablets are enteric coated to prevent gastric irritation and insure optimal toleration.





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3. Coburn, A. F.: Bull. Johns Hopkins Hosp., 78:435, 1943.
4. Dry, T. J. et al.: Proc. Staff Meetings Mayo Clin., 21:497, 1946.
5. Editorial: J.A.M.A., 138:367, 1948.
6. Reid, J.: Quarterly J. Med., 17:139, 1948.
7. Rosenblum, H. and Fraser, L. E.: Proc. Soc. Exper. Biol. and Med. 65:178, 1947.

Correspondence

Communications from the readers of MODERN MEDICINE *are always welcome. Address communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Cyanosis from Contaminated Water

TO THE EDITORS: In the Refresher in General Practice on "Care of the Newborn" *(Modern Medicine,* Mar. 15, 1949, p. 36), I note the omission of the possibility of nitrite-producing organisms in the intestinal tract as a contamination from the water used in making up formulas, causing either met- or sulfhemoglobinemia. This can be the cause of cyanosis, easily confirmed (and cured) by changing to proper supply of water.

PAUL W. VAN METRE, M.D.
Rockwell City, Iowa

More Special Articles

TO THE EDITORS: Please print more special articles and exhibits.

CHOW CHAN, M.D.
Hong Kong, China

Always Reads "Forensic Medicine"

TO THE EDITORS: I read with a great deal of interest your column on Forensic Medicine each time in my copy of *Modern Medicine.* It is contributing to my better understanding of legal medicine. I have formed the habit of clipping out certain interesting legal points which some day may be of interest to me professionally as well as academically.

ROBERT B. ELLIOTT, M.D.
Houston

Cover to Cover

TO THE EDITORS: I like your magazine very much and it is the only one I read regularly from cover to cover.

C. E. WILLS, JR., M.D.
Washington, Ga.

Physicians' Letter Exchange

TO THE EDITORS: The United Nations Council of Philadelphia has been working for some time on the promotion of international friendships by a Letter Exchange between America and the other countries of the world.

There has been a tremendous response from people in all walks of life and we feel sure that professional men, and physicians in particular, could help tremendously by exchanging ideas with foreign colleagues.

American physicians, returning from abroad, tell of many discouraging conditions—lack of sufficient drugs and equipment and, most important, ignorance of the advances in various fields of medicine during the past ten years.

Foreign physicians are eager for correspondence with American colleagues. A British physician writes that he is anxious to "exchange views with an un-nationalized doctor." We have just received lists of hundreds of Japanese medical men and students

A NEW, DRAMATIC THERAPY FOR THE RELIEF OF PAIN AND LESIONS OF

HERPES ZOSTER

ALSO CLINICALLY PROVED FOR THE LIGHTNING PAINS AND ATAXIA OF TABES DORSALIS

DESCRIPTION: Protamide is a sterile, aqueous colloidal solution of a specially processed proteolytic enzyme, for the maximum relief of nerve root pains of Herpes Zoster and Tabes Dorsalis.

CLINICAL RESULTS: Highly gratifying clinical results have been obtained with the use of **Protamide** (Sherman) in the treatment of the extremely resistant herpes syndrome. Pain has been relieved in the great majority of herpes cases within four to forty-eight hours and lesions have healed in ten days or less—regardless of the particular nerve roots involved. Complete clinical data may be obtained by writing for the Protamide literature on Herpes Zoster and a recent reprint on Protamide for Tabes Dorsalis.

DOSAGE: In Herpes Zoster the recommended dosage is 1.3 cc of Protamide intramuscularly each day from two to four days. No contraindications or incompatability have been reported to date. All Protamide is clinically tested for positive results. Can be stored at room temperature without loss of potency.

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interested in discussing all branches of medicine. What better method of establishing international friendships than by exchanging ideas and discussing conditions with a foreign friend?

A physician can help by writing to one foreign physician. Each correspondent will be matched according to age, background, and, as near as possible, field of medicine. The foreign letters will be translated whenever necessary.

Letters should be addressed to: Letters Abroad, United Nations Council of Philadelphia, 1411 Walnut Street, Philadelphia 3.

G. ALISON RAYMOND
Publicity Director

Philadelphia

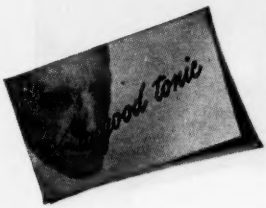
An Efficient Physician's Bag

TO THE EDITORS: Upon starting practice following the war, it soon became apparent to me that the usual physician's bag is a very inefficient gadget. Perhaps many doctors have shared my experience of groping unsuccessfully in the dark recesses of the bag for an item they cannot find and finally in desperation turning the bag upside down. Usually, the last item to fall out is what you're looking for and that breaks as it hits the floor.

Following such an especially trying search I started working on a different style of bag and after several unsuccessful tries, happened to see a mechanic's tool kit which was modified by a cabinetmaker to reduce its size. This was, however, too big. I wrote to the company who made this bag and tried to interest them in making a physician's bag. They made up a bag to my specifications and after using it for some time it was further modified. The photo shows the final product.

Familiar to every physician are the

patients who need a good tonic



To stimulate appetite, to restore vigor and general tone, Eskay's NEURO PHOSPHATES and Eskay's THERANATES are two of the most useful preparations you have. These tonics are prescribed so widely because they work so well.

Smith, Kline & French Laboratories, Philadelphia

Eskay's Neuro Phosphates

a palatable and effective tonic

Eskay's Theranates

the formula of famous Neuro Phosphates, plus Vitamin B_1

The bag consists of an upper compartment which runs the whole length and width of the bag and is 3 in. deep. Pill bottles are attached to the cover. The lower portion of the bag consists of five square drawers of varying depth. The drawers have small grooves in their sides for the insertion of metal partitions in either a lateral or longitudinal direction. The ends of the drawers are covered when the bag is closed and the cover locks into place when the bag is closed. The bag is made of wood and the bottom of the drawers are metal. The outside is covered with conventional black leather and the top edges are rounded.

By being square the space in the

bag is used more efficiently than if the top were rounded as the conventional bag is. The drawers are compartmentalized to accommodate syringes, needles, ampules, and instruments, while larger objects can be carried in the top compartment. The bag weighs 8½ lb., empty. Outside dimensions are: 11½ in. high, 8 in. wide, and 14 in. long.

A. T. HAEREM, M.D.
Redwood City, Calif.

5 good reasons

There are five good reasons why SULAMYD* (Sulfacetimide-Schering) is the preferred sulfonamide in the treatment of pyelitis, pyelonephritis, cystitis and other infections of the urinary tract.

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1 ***Unusual efficacy:*** In *B. coli* infections of the urinary tract, recovery or improvement with SULAMYD is unusually high, ranging from 93 to 98% of cases.[1,2]

2 ***High urinary levels:*** Due to SULAMYD's rapid clearance from the blood and easy excretion by the kidneys, high urinary concentrations are obtained in the presence of low blood levels.[3]

3 ***Excellent renal tolerance:*** Crystalluria is rare and anuria has never been reported following SULAMYD therapy. This enviable record is due, in large measure, to SULAMYD's remarkable solubility (946 mg. per 100 cc.), approximately 80 times that of sulfadiazine.[3]

4 ***Systemically well tolerated:*** Side effects are minimal and uncommon. SULAMYD may, therefore, be administered with greater security to infants, children and pregnant women.[1,4]

5 ***Alkalinization is unnecessary,*** since SULAMYD is quite soluble in both acid and alkaline urine.

PACKAGING: SULAMYD, sulfacetimide, tablets of 0.5 Gm., in bottles of 100 and 1,000 tablets; and bottles of 5.0 Gm. powder, for laboratory determinations upon blood and urine.

BIBLIOGRAPHY: (1) Welebir, F., and Barnes, R.W.: J.A.M.A. 117:2132, 1941. (2) Alyea, E.P., and Parrish, A.A.: South. M.J. 40:678, 1947. (3) Lehr, D.: J. Urol. 54:87, 1945. (4) Prentiss, R.J., and Kanealy, J.F.: J. Urol. 47:11, 1942.

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Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: I have a twenty-nine-year-old man suffering—and I do mean suffering—from migratory phlebitis. Numerous TT's have been used to no avail. Available literature gives little encouragement. Could you offer some therapeutic suggestions?

M.D., Pennsylvania

ANSWER: *By Consultant in Vascular Diseases.* Many believe that migratory phlebitis is an early symptom of Buerger's disease. I treat my cases with hot packs locally and large doses of penicillin. I use the fortified penicillin, 300,000 units every forty-eight hours. To this I often add 7.5 gr. of sulfadiazine four times a day. When the attack is completely over I continue the sulfadiazine for one week and then for one week in every four during the next year. The patient should stop smoking.

INSTRUCTIONS FOR HOT PACKS

Bed rest is essential. It is useless to sit in a chair with the leg on another chair and try to apply hot wet packs.

Body must be flat. Only one pillow under head.

Knee should be flexed slightly with the lower leg high and about level on a pile of pillows 16 in. above the mattress.

Packs should be applied at least 10 in. above and below the area to be treated.

Temperature of packs should begin at 120° F. and be increased as tolerated—preferably to 130° F. if the patient does not object.

Fresh packs should be applied as quickly as possible to prevent cooling of the skin between changes. The packs are best applied as follows:

1] Fold a blanket four times and place on top of a pile of pillows.

2] Half fill several hot-water bottles with water at right temperature. Compress the air out of the bottles as cork is tightened.

3] Wring large bath towels and woolen blankets out of hot water. Quickly apply the wet towels, then the hot-water bottles, then wrap the blanket about all, and pin tightly.

If the pack is properly applied it will stay hot for at least two hours. The pack should be changed every two hours.

Best results will be obtained if the packs are continued for not less than four hours at a time.

When the ACE bandage is applied the patient should walk a great deal.

QUESTION: How much cyclopropane is used for an anesthesia of one-half hour, as for routine appendectomy? How much ethylene?

M.D., Tennessee

ANSWER: *By Consultant in Anesthesiology.* The question cannot be answered in exactly this form. If the purpose of the question is to find the total amount of gas used and therefore the cost, the information may be figured approximately from the following:

Usually the 5-liter bag is filled with 80% oxygen and 20% cyclopropane. The mask is fitted tightly and the gases are set at about 300 cc. per minute each

of oxygen and cyclopropane. The cyclopropane is increased by 100 cc. per minute every thirty seconds until flowing at 600 cc. per minute. The cyclopropane is kept at that rate until the proper plane of anesthesia is attained, usually seven or eight minutes after the start of anesthesia. From then on the cyclopropane flow usually ranges between 50 cc. and 200 cc. per minute for correct anesthesia.

For ethylene the 5-liter bag may be filled with 80% ethylene and 20% oxygen. The flow may then be continued with 200 cc. ethylene and 300 cc. oxygen with a tight-fitting mask and enough ether vapor added to obtain the right anesthesia.

QUESTION: Will you give me some information regarding the technic for performing the Rotter test for tissue levels of vitamin C? Where can I obtain the dichlorophenol-indophenol solution? How do I interpret the results?

M.D., Oklahoma

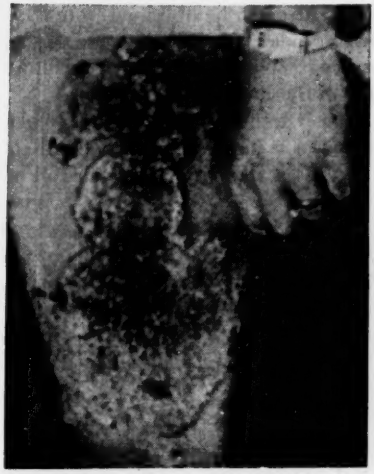
ANSWER: *By Consultant in Clinical Pathology.* Since the description of the intradermal dye discoloration test for vitamin C by Rotter in 1938, several articles have appeared in which various authors have attempted evaluations (L. B. Slobody, *J. Lab. & Clin. Med.* 29:464, 1944; A. H. Holland *et al., J. Lab. & Clin. Med.* 32:124, 1947).

Slobody's procedure is to inject enough $\frac{N}{300}$ 2-6 dichlorophenol-indophenol intradermally to raise a wheal 4 mm. in diameter. The time of complete disappearance of the dye is measured. Slobody interprets the results as follows:

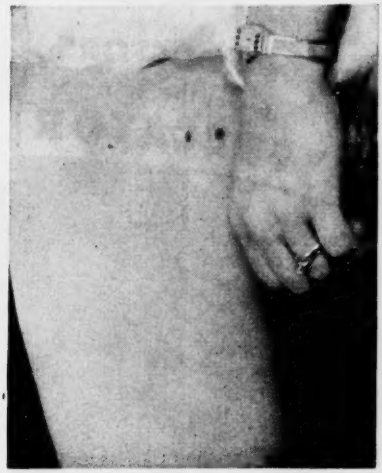
Complete decolorization in over 14 minutes—*Vitamin C deficiency*

Complete decolorization in 9 to 13 minutes—*Mild deficiency*

Complete decolorization in less than 9 minutes—*No deficiency*



Psoriasis — duration 15 years



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The vitamin C saturation test performed by measuring the amount of vitamin C excreted in the urine following an intravenous test dose of vitamin C is considered by most to be a more satisfactory test for vitamin C deficiency.

Complete details of this test can be found in an article by I. S. Wright *et al., Arch. Int. Med.* 60:264, 1937; and one by S. L. Smith, *J.A.M.A.* 111: 1753, 1938.

QUESTION: What difference in cochlear pathology is there between injury from persistent acoustic trauma and that from a single instance of acoustic trauma?

M.D., New York

ANSWER: *By Consultant in Otology.* In persistent acoustic trauma the pathologic changes are most pronounced in the basal turn of the cochlea. Degeneration occurs in the hair cells of Corti's organ and the cells of the spiral ganglion. There is early loss of hearing in the region of 4,096 cycles.

Later this loss will extend below this level to involve the speech frequencies. This finding is characteristic of progressive inner ear deafness.

Following acoustic trauma of the blast or concussion type, two types of injury are found. In one the middle ear is damaged, with traumatic rupture of the tympanic membrane and hemorrhage. The cochlea may not be seriously harmed. In the second form, the force is exerted mainly on the inner ear, without drum injury. In this case, the pathologic changes are located chiefly in the basal turn of the cochlea just within the oval window.

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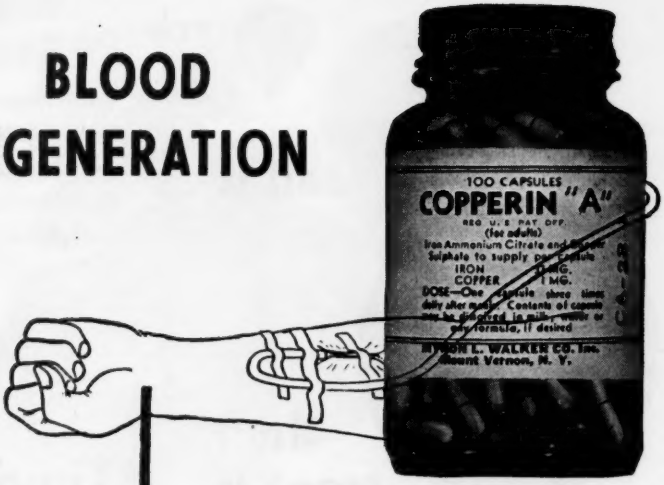

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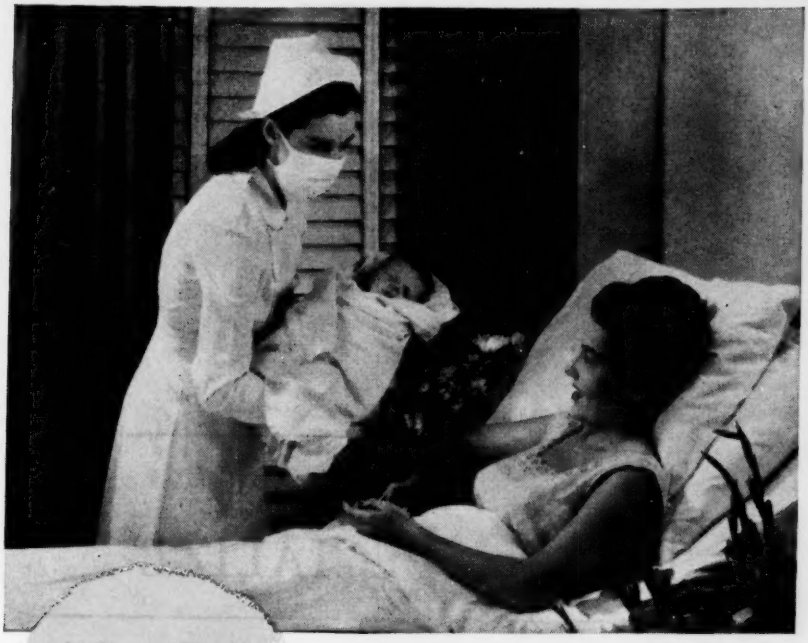

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*Brougher, J. C.: Prevention and Treatment of Postpartum Fissured Nipples with Local Applications of Vitamin A and D Ointment, Western J. Surg., Obstet. and Gynecol. 52:520-521 (Dec.) 1944.

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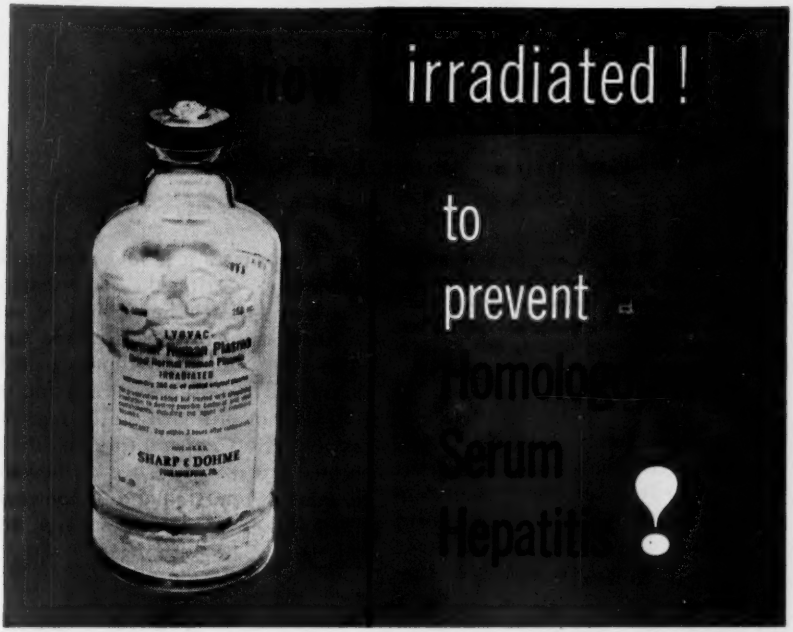

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Forensic Medicine

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PROBLEM: Was an employee entitled to workmen's compensation award for disability resulting from smallpox vaccination supplied by the employer, when the vaccination was urged, but not required?

COURT'S ANSWER: Yes.

The New Jersey Superior Court, Appellate Division, said that the disabling effects of the vaccination should be regarded as an accident arising out of and in the course of employment; that it would be unrealistic to assume that the employer furnished the vaccination solely for the benefit of his employees. The vaccination benefited the employer by acting as a safeguard against the serious effects of smallpox among his employees (64 Atl. 2d 99).

PROBLEM: Staff members of a memorial hospital contracted to render services for fixed percentages of money received by the hospital from members and nonmembers. Did it constitute an illegal waste of the hospital's funds for the directors to pay a bonus of $1,500 in a lump sum to each of the doctors comprising the staff?

COURT'S ANSWER: No.

The U. S. Court of Appeals, Tenth Circuit, upholding a decision of the U.S. District Court for Kansas, noted that the bonus was paid in recognition of efficient services rendered over a four-year period and in compliance with an agreement that if the percentage compensation should prove to be inadequate during the early years of the hospital, a bonus would be paid if financial success was achieved later. The court said that a bonus paid by a corporation in good faith for services is not ordinarily to be regarded as a reckless expenditure or unwarranted gift if it is related to the value of services rendered and promotes the corporation's best interests (170 Fed. 2d 859).

PROBLEM: A newspaper published a letter stating that a doctor had refused to attend an accident victim because he was not licensed to practice in the state. The paper commented editorially that if an out-of-state doctor could not legally render first aid in an emergency, the law was sillv and dangerous and that in such emergencies a doctor ought to be permitted to render first aid without technically violating the law. Did the newspaper defame the doctor?

COURT'S ANSWER: No.

The New Hampshire Supreme Court decided that the letter and comment were not so worded as to show intention of the publisher to reflect discredit upon the doctor. The jury decided that the editor merely intended to condemn the law if it forbade emergency treatment by a doctor not locally licensed. The Supreme Court ruled that the verdict was supported by ample evidence. The Supreme Court noted that, although local law

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Hyoscyamine Sulfate	**0.1037 mg.**
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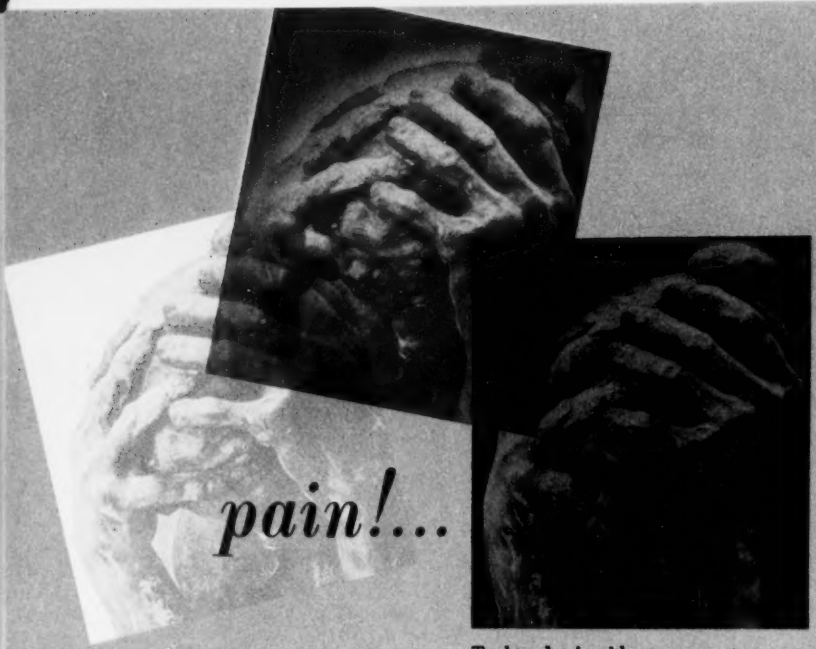

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Each tablet or capsule contains:

Phenacetin (3 gr.)	**194 mg.**
Acetylsalicylic Acid (2½ gr.)	**162 mg.**
Hyoscyamine Sulfate	**0.03 mg.**
Phenobarbital (¼ gr.)	**16.2 mg.**

● *phenaphen*

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ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878
Richmond 20, Va.

did permit the doctor to give emergency aid, he had given the newspaper reason to believe that it did not. The court also upheld the right of newspapers to discuss and condemn in good faith and without malice, as a matter of social and moral duty, the inability of a community to provide emergency care (63 Atl. 2d 791).

PROBLEM: An injured workingman brought a malpractice suit against a physician chosen, under the Maine workmen's compensation act, to treat him. Could the workman sue without first demanding that his employer bring the suit?

COURT'S ANSWER: No.

Under the Maine statutes, an injured employee's acceptance of an award does not preclude him from suing the physician, if the employer fails to do so within thirty days after written demand by the employee. Demand upon the employer to sue, however, is a condition to the employee's right to sue.

In common-law personal injury suits, defendant is liable for aggravation of the injury due to malpractice of a physician selected with reasonable care. The increased injury is regarded as a foreseeable result of the original injury.

The Maine Supreme Judicial Court decided that the rule is also applied in workmen's compensation cases when an injury to an employee is aggravated by the negligent or unskillful treatment of a properly chosen physician or surgeon and if the chain of causation remains unbroken the resulting disability or death is compensable and an award of compensation includes the original injury and the ultimate results through malpractice (63 Atl. 2d 302).

VALUE IN NERVE-DEAFNESS ESTABLISHED

A growing number of clinical reports establishes that AMVITOL* (parenterally) supplemented by HYVANOL* (orally) increases hearing acuity in a high proportion of cases of nerve-deafness. Jacobson,[1] a pioneer in the use of vitamin-amino acid therapy in hearing disorders, reported that improvement was shown for the most part in the higher octaves, which he regards as of especial significance since "it is the high-frequency range which is first affected in damages to the acoustic nerve." Later studies[2] confirmed these original findings: improvement was noted in 73 per cent of 57 patients. Gordon[3] obtained favorable results in 76 per cent of 28 cases, using AMVITOL and HYVANOL. Hearing improvement was obtained "within several weeks" after the beginning of treatment. Other investigators[4,5] have similarly acclaimed this effective, new approach to the management of nerve-deafness.

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1. Jacobson, M.: New York State J. Med. 45: 2079 (1945).

2. Hirschfeld, H.; Jacobson, M., and Jellinek, A.: Arch. Otolaryngol. 44: 686 (1946).

3. Gordon, G. R.: J. M. A. Alabama 17: 340 (1948).

4. Michels, M. W.; et al.: Permanente Foundation M. Bull. 5: 124 (1947).

5. Laub, G. R.: The Recorder 11: 10 (1947).

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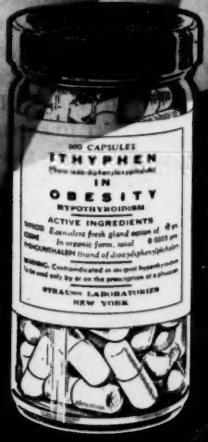

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Washington Letter

Survey of Diagnostic Centers

Preliminary reports on a nationwide survey of public nonprofit diagnostic clinics show some surprising results. U.S. Public Health Service experts have established that there is a great variation in the efficiency and effectiveness of the centers. Experts also learned that on the part of physicians there is a similar variation in reliance on these laboratories.

The result is a tremendous, continuous waste of skilled manpower. Because inefficient and ineffective procedures in some clinics produce a high percentage of confusing reports, many physicians suspect the findings of all diagnostic laboratories. To correct this, U.S. Public Health Service has started a campaign to standardize laboratory methods and procedures. This will be followed by an educational campaign designed to reach every public and nonprofit institution in the country. The expectation is that both tasks can be completed in the next three years.

National Health Council Approves Rapid Expansion

For several years the Communicable Disease Center at Atlanta has been studying clinic procedures. The director, Dr. Seward Miller, presented the findings at a recent meeting of the National Advisory Health Council in Washington. He did not make a formal written report, but the figures he gave were enough to convince the council that need for corrective action was urgent.

The council advised Public Health Service to expand the program as rapidly as possible. No difficulty is anticipated in getting the necessary money for the campaign. Six represent-

(Continued on page 44)

"You make an excellent cup of coffee, Miss Blanchard."

Contact

OF A SENSITIZED BODY CELL
with an allergen and subsequent release of histamine is considered to be the mechanism of allergic disorders.

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Whittier
LABORATORIES
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Chicago 30, Illinois

atives are in the field gathering material from clinics, and a staff of 80 is at work in Atlanta evaluating the methods and procedures. Next year, when the estimations have been completed and procedures set up, Congress will be asked for an appropriation to cover two years.

Findings Hard to Evaluate

"The first thing we confirmed was that there is a great deal of variety in the effectiveness and methods employed by clinics," a Public Health spokesman told MODERN MEDICINE. "Many of the clinics are not too statistical in their findings, and their reports are difficult to evaluate. It's understandable that doctors don't place the same credence in the findings of every clinic. Some physicians will let findings from a certain clinic influence their decisions 90%, and other men won't give them more than 10% weight. Some take everything in the clinic reports as the Gospel, and others hardly trust them. We think the answer is somewhere in between. But the first step is to develop some uniform procedures in the clinics themselves."

Four Stages to Nationwide Program

The workers at Atlanta are part way through the first phase of the campaign, the "methodology research." Once enough facts have been gathered about how individual laboratories and clinics are doing their work now, standardized methods and procedures will be worked out for all.

In the next phase, key employees of state health departments will be trained in the standardized methods. It will be the task of these state employees, assisted by the Public Health Service, to train city and county clinic workers in the new methods. Another part of the program will be the development of a uniform diagnosis reference, to insure that the physician and laboratory use and understand specific terms in the same way. Once all this has been accomplished, Public Health Service hopes to confine itself to an advisory role. It will assist states in consultations and evaluations at individual laboratories.

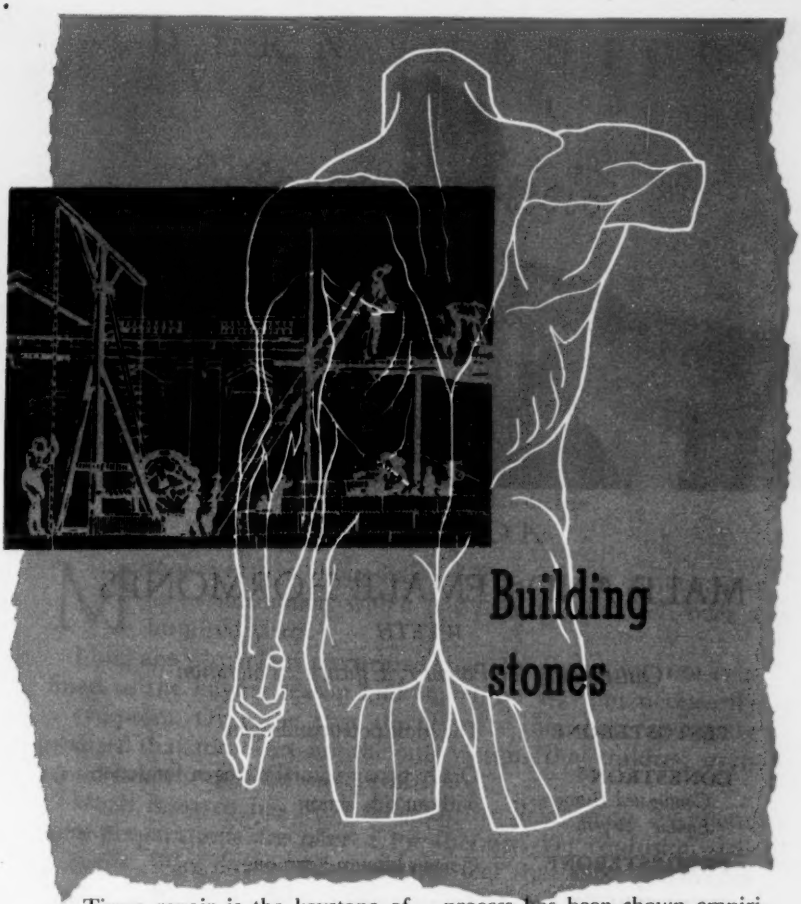
New Cabinet Department by Default?

Unless something unexpected occurs, a new cabinet department of welfare and education will become effective on August 19, with the present Federal Security Administrator, Oscar Ewing, as first secretary. The unexpected development would be adjournment of Congress prior to that date.

The contest against time developed this way: The reorganization act under which President Truman created the new department provides that his recommendations become law if not vetoed by Congress within sixty days. To give himself all the time possible, Mr. Truman sent his reorganization plan to Congress just as soon as he signed the reorganization act, June 20. Early in the session, Congress had been heading for an August 1 adjournment, but that date had to be given up. Now the administration is expecting to keep the session going until after August 19.

The chance that Congress will turn down Mr. Truman by a formal vote is slight. Either house could do this alone and kill the plan, but only by

(Continued on page 78)



Tissue repair is the keystone of the recovery process. It makes little difference if the infection is halted, the fracture reduced, or the metabolic imbalance adjusted —it is the patient's own cells that must complete the cure.

While true hypoproteinemia is comparatively rare, nevertheless hypernutrition with essential amino acids during the recovery process has been shown empirically to speed the patient upon the road to normal health. Amino acid preparations should be supplemented by moderate amounts of vitamins.

Lederle research has for some time been concerned with such mixtures of amino acids and vitamins and their application in the field of nutrition.

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Special Article

What Can Be Done for the Hay Fever Patient?

ALBERT V. STOESSER, M.D., Ph.D.* †

Prepared for Modern Medicine

MISCONCEPTIONS about hay fever are almost as tenacious as its misnomer, which has persisted for well over a hundred years.

Long ago physicians recognized that the disease was not confined to the haying season and that fever was not necessarily a symptom. Over the past thirty years they have gradually realized that adults are not the only victims, that children, even small infants, may be susceptible.

Much research has been done in the field, many excellent new preparations are offered for therapy. Yet confusion still prevails. Why do so many patients feel that their physicians cannot help them? Why is there so much pessimism about hay fever treatment among doctors and hay fever sufferers?

It may be stated that in spite of all the new preparations offered to the physician, the treatment of pollenosis with drugs alone is not the best. Specific pollen therapy is safer, but even this does not give perfect results. A combination of the two forms of treatment can be recommended. However, greater knowledge of the chemistry of pollen and attention to even minor details in inoculations and related factors are needed.

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In order to clarify the situation and, we hope, inject a bit of optimism, the problem must be considered from several angles. First, that of diagnosis. Why is the disease so easily overlooked, particularly in children?

Second, what should be done for the hay fever patient in the acute stage of the disease—at the time when he is usually first seen by the physician?

Finally, and most important of all, what are the steps to be taken in the long-range treatment of the disease? Here lies one of the major misunderstandings about hay fever: Too many patients are considered as having a disease which causes trouble for only a few weeks or months of the year. *If every hay fever sufferer were considered a perennial patient, more persons would be benefited by treatment.*

DIAGNOSIS OF HAY FEVER

The onset of hay fever in small children does not always follow a pattern as typical as that in older individuals.

When the causative pollen season starts, which may be at any time during the spring, summer, or fall, the child may seem to have an upper respiratory infection, with or without a little fever. Coughing may appear and, by examination, the clinician becomes suspicious of bronchitis or pneumonia. Recently it has been a too common practice to diagnose the condition, especially if fever is present, as atypical or virus pneumonia.

The results are the same regardless of the kind of therapy tried by different physicians. After a few weeks, the child recovers. All is well until the following year, when the same sequence occurs. This time the clinician should realize that he is dealing with an allergic manifestation. Most significant is a history of allergy in the family. If the mother or father has eczema, hay fever, or asthma, the diagnosis is practically assured.

TABLE 1. SIDE EFFECTS OF ANTIHISTAMINES

Drowsiness	*Tremor*	*Dryness of mouth*	*Diarrhea*
Headache	*Muscular weakness*	*Tachycardia*	*Constipation*
Fatigue	*Syncope*	*Bradycardia*	*Frequency*
Ataxia	*Blurred vision*	*Arrhythmia*	*Dysuria*
Vertigo	*Tinnitus*	*Epigastric pain*	*Dermatitis*
Nervousness	*Cough*	*Nausea*	*Pruritus*
Insomnia	*Dyspnea*	*Vomiting*	*Anemia*

The preschool child may have an irritation of the eyes thought to be "pink eye." The first time the trouble is observed, the true cause may not be suspected, but when the condition appears the next year at practically the same time, allergy must be investigated. Tree pollen is the most common offender, but grass or weed pollen may cause the reaction. Many of these patients have no obvious symptoms besides the eye condition, but examination often reveals definite evidence of allergy in the nasal passages.

TABLE 2. RELATIONSHIP OF VARIOUS ANTIHISTAMINIC DRUGS

Group 1	*Group 2*
Neohetramine (Wyeth) Syrup; 25- 50- and 100-mg. tablets	Thenylene (Abbott) 25- 50- and 100-mg. tablets
Neo-Antergan (Merck) 25- and 50-mg. tablets	Histadyl (Lilly) Syrup; 25- 50- and 100-mg. pulvules; also injectable
Pyribenzamine (Ciba) Elixir; 25- and 50-mg. plain tablets; 50-mg. coated tablets	Diatrin (Warner) 50-mg. tablets
	Tagathen (Lederle) 25-mg. tablets
	Chlorothen (Whittier) 25-mg. tablets
Group 3	*Group 4*
Trimeton (Schering) Elixir; 25-mg. tablets	Decapryn (Merrell) Syrup; 12.5- and 25-mg. tablets
Pyrrolazote (Upjohn) Elixir; 25- and 50-mg. tablets	Benadryl (Parke, Davis) Elixir; 25- and 50-mg. capsules; also injectable
Thephorin (Roche) Syrup; 25-mg. tablets	Hydryllin (Searle) Elixir; tablets

The child of school age may have severe nasal distress during the summer months. Quite often the difficulty begins in the spring and continues into the fall.

Parents often assume that the youngster is having "summer colds," due in part to too much activity in sports during the vacation period; swimming is frequently blamed for the symptoms. However, when the fall of the year arrives and the child

is back in school, the condition still exists. Not until the following year do further observations bring forth the correct diagnosis.

In the young adult, onset of hay fever is usually more or less typical. The eyes suddenly become injected with lacrimation. Itching is present. The nose is red from rubbing. A rather profuse, watery nasal discharge appears. Sneezing is common. The patient is a truly sick individual, although he has no fever. What shall be done?

IMMEDIATE TREATMENT

The hardest part of the immediate treatment is to convince the adult patient and the parents of the child with hay fever that certain rules are of great importance. How many will cooperate? The number depends chiefly on the amount of time the physician is willing to give to details.

A complete history and physical examination should be obtained in order to get information on any concomitant diseases and to ascertain the patient's general condition.

The diet should be light, but all essential foods must be eaten. Occasionally, frequent small meals are best. Rest is most important. Too much activity for a child or too much work for an adult may greatly increase the severity of symptoms. Long, tiresome rides in the country are forbidden. Swimming is completely eliminated. Dusty, smoky, or even damp places should be avoided.

These recommendations are often disregarded in spite of the fact that they definitely reduce suffering and complications. If adult patients would choose the hay fever season as their vacation period, they might be able to follow the rules more thoroughly.

Medication does not include the routine use of eye or nose drops, although in a few instances this form of therapy may be employed, especially at bedtime. An isotonic solution of 0.25 to 0.5% neosynephrin, 0.5 to 1% propadrine hydrochloride, 1% paredrine hydrobromide, 1 to 2% tuamine sulfate, or 0.05% privine may be tried. Oenethyl sulfate in a 1% solution is a new preparation.

Antistin in the form of a 0.5% solution may relieve eye symptoms but can cause an irritation. The same is true of 0.5% his-

(Continued on page 88)

Heparin Therapy of Coronary Thrombosis

LEO LOEWE, M.D., AND H. B. EIBER, M.D.*
Jewish Hospital, Brooklyn

THE management of patients with acute coronary artery thrombosis should include the use of anticoagulants. Because of easy administration, prompt effectiveness, and lack of toxicity, heparin in Pitkin menstruum is well suited for treatment of the disease. Leo Loewe, M.D., and H. B. Eiber, M.D., feel that heparin in Pitkin menstruum is preferable to dicumarol for avoiding thromboembolic complications in patients with coronary thrombosis.

Because the individual response to dicumarol is variable, the dosage schedule is complex. Dicumarol requires at least twenty-four hours for therapeutic effectiveness and, therefore, offers no protection to the patient during the critical first day of illness. When heparin is given in Pitkin menstruum, prolongation of clotting begins in one to two hours and lasts forty-eight hours or more.

Neither renal nor hepatic disease, though both are contraindications to dicumarol, proscribes the employment of heparin.

Only the relatively simple bedside determination of clotting time is necessary with heparin. When dicumarol is used prothrombin time must be calculated daily, a rather expensive laboratory procedure often difficult to obtain.

Earlier preparations of heparin in Pitkin menstruum caused a painful local reaction at the site of injection. This effect is now controlled by careful buffering of the gel.

Treatment should be begun as soon as possible after diagnosis is established. For prompt and adequate prolongation of coagulation, 400 mg. of heparin is given subcutaneously in the initial dose of menstruum. This amount is usually repeated every other day for three or four injections. Thereafter, depending on the clotting time, which should be three times normal value or more, the dose of heparin may be diminished to 300 or 200 mg. and given at longer intervals.

Therapy must be continued at least until the patient is allowed out of bed and should then be gradually cut to avoid the hypercoagulability phenomenon which occasionally occurs with sudden cessation of treatment.

If the coagulation time requires shortening, absorption of heparin can be slowed by applying ice bags to the site of the deposit. Circulating heparin is readily inactivated by small transfusions of relatively fresh whole blood.

Active bleeding is the only contraindication to the use of heparin. With an intact vascular system, overdosage causes no complications. The menstruum without vascoconstrictor drugs should be employed when dealing

* Anticoagulation therapy with heparin/Pitkin menstruum in the management of coronary artery thrombosis and its complications. Am. Heart J. 37:701-719, 1949.

with intraarterial clotting, especially of the coronary arteries.

Of 20 patients with acute coronary thrombosis treated by heparin in Pitkin menstruum, all but 1 person recovered. Treatment in the fatal case was not begun until the eleventh day of illness. In the 19 patients who recovered no clinical or electrocardiographic evidence was found of extension of infarct. Periods of bed rest and convalescence were shortened. No thromboembolic complications occurred after anticoagulant therapy.

Reclassified Cardiovascular Rejectees

PAUL D. WHITE, M.D., BOSTON, ROBERT L. LEVY, M.D., NEW YORK CITY, WILLIAM J. KERR, M.D., SAN FRANCISCO, WILLIAM D. STROUD, M.D., PHILADELPHIA, AND GEORGE K. FENN, M.D., CHICAGO*

A STUDY was made in 1947 of 303 men who were reclassified as fit for military service in 1943 after being rejected for circulatory or heart disorders. By assessing the effects of war and postwar adjustment on these men, Paul D. White, M.D., and colleagues sought answers to many problems in cardiovascular diagnosis.

Nearly all the veterans were found to be in good health in 1947. Only 4 were disabled. Most of the men had served long and well. The majority had been on active duty for about two and one-half years and were discharged without disability.

The men were examined by almost exactly the same special cardiovascular boards in Boston, Chicago, New York, Philadelphia, and San Francisco that had reclassified them as 1A in 1943. The total number of men resubmitted was 863, of whom 447 were accepted for military duty. At the time of the study, 303 could be located for examination, all but 49 of whom were veterans.

Heart murmurs, commonest cause for original rejection and present in half of the men in 1947, were usually unimportant and variable.

Transient hypertension, the most difficult condition to evaluate, was observed in 67 men in 1943 and in 17 of these in 1947. Normal readings were noted in 33 of the 67 and sustained high blood pressure in the other 17.

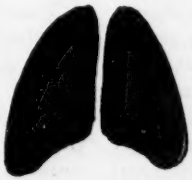
Neurocirculatory asthenia developed in 7 men during the four-year period. Definite heart enlargement was found in only 4 of the veterans. Transient tachycardia, noted in 35 in 1943, had disappeared in 19 by 1947. In a few cases however, tachycardia had developed.

Many of the men had had rheumatic fever in childhood or early adult life, but showed no sequelae. Valvular lesions not evident in 1943 were noted in 4.

* Cardiovascular rejectees. J.A.M.A. 139:1049-1053, 1949.

Primary Pleural Effusion

JOSEPH R. KRAFT, M.D.*
Fitzsimons General Hospital, Denver



UNTIL proved otherwise, primary pleural effusions are usually considered to be tuberculous.

By observation of 100 patients with primary pleural effusion but who did not have parenchymal disease, Joseph R. Kraft, M.D., found pulmonary tuberculosis in 21 and renal tuberculosis in 1 within six months after onset of pleurisy. Other studies have shown that appearance of parenchymal lesions may be expected up to five years after the effusion occurs.

Problems of differentiation are presented by the insidious onset, chest pain, fever, and malaise. The diagnosis of atypical pneumonia with effusion is the most common error.

Unfortunately, no generally applicable diagnostic methods are available for ready identification of the different forms of primary pleurisy.

Examination of aspirated fluid may give definitive information and establish the diagnosis. Nevertheless, the relatively low incidence of successful isolation of the tubercle bacilli from pleural fluid emphasizes the importance of careful physical examination, observation, and judgment from experience.

The treatment of pleural effusions comprises bed rest and removal of sufficient quantity of fluid to limit the formation of fibrinous visceral-parietal adhesions.

For the probably tuberculous pulmonary lesion the shortest period of hospitalization to be considered is one year of complete bed rest in a sanatorium.

Bed rest for the underlying tuberculous lesion may be considered prophylaxis rather than treatment.

Periodic physical and roentgenographic examinations should be made during four years after discharge from institutional care.

A normal erythrocyte sedimentation rate within the first six months of rest does not necessarily preclude the subsequent development of a parenchymal lesion, and a normal sedimentation rate is not a trustworthy guide by which to determine the duration of treatment.

In many cases, however, subsidence of the erythrocyte sedimentation rate appears to be directly related to regression of pleural fluid or fibrinous pleurisy.

The responsibility upon the physician to regard a pleural effusion as probably tuberculous and to institute appropriate measures is tremendous. A long period of bed rest is a great economic burden. The physician must deliberately disregard this influential factor in making the diagnosis and prescribing the necessary treatment.

* The diagnostic problem of primary pleural effusion. Am. Rev. Tuberc. 59:259-269, 1949.

Exchange Transfusion Therapy

M. Bessis, M.D.*

National Center of Blood Transfusions, Paris

Total replacement transfusion should be considered for severe toxemia when the injurious agent is in the blood, and for leukemia.

M. Bessis, M.D., believes that the most important indication for replacement transfusion is anuric nephritis. Simultaneous bloodletting and transfusion combats anemia and replaces pathologic plasma with normal plasma, thus preventing or diminishing secondary renal injuries from the products of hemolysis, whether the cause is septicemia, hemolytic poison, crush syndrome, or transfusion reaction due to incorrect grouping or typing.

TABLE 1

Replacement Transfusion	*Intraperitoneal Dialysis*
1. Removes all toxic products, including the nondialysable ones, such as hemoglobin, myoglobin, stromas.	1. Removes only the dialysable toxic products.
2. Does not modify the equilibrium of the tissue fluids.	2. Unless special precautions are taken, equilibrium is destroyed because too many electrolytes are added or lost or too much water added. This may cause cerebral edema.
3. Does not cause any severe reactions.	3. Usually causes peritonitis of the plastic type by the formation of adhesions. Sometimes causes the infectious type.
4. Can be used as often as needed.	4. Possibility of peritonitis prevents continuous use for more than a few days and frequently prevents reemployment.
5. Very efficient. Removes a larger quantity of toxic products which can be calculated beforehand.	5. Removes a smaller quantity which cannot be calculated beforehand.
6. Painless and rapid.	6. Inconvenient and slow.

The procedure provides elimination and allows survival until the kidneys regain normal function.

The effects of replacement transfusion are compared to those of intraperitoneal dialysis in Table 1.

Exchange transfusion for leukemia is based on the theory that normal persons have an antileukemic sub-

* The use of replacement transfusion in diseases other than hemolytic disease of the newborn. Blood 4:324-337, 1949.

TABLE 2

Quantity of blood injected	*Percentage of blood transfused in the patient's organism*
½ vol. of patient's blood	39.4
1 vol.	63.2
1½ vol.	77.7
2 vol.	86.5
2½ vol.	91.8
3 vol.	95.0

stance in their blood. Of 38 patients treated at the National Center of Blood Transfusions, Paris, 30 had remissions, 15 with normal peripheral blood, and 6 with normal blood and bone marrow.

Withdrawal and injection of blood are done simultaneously so that total volume is unchanged. The percentage of transfused blood in the body as compared to the quantity injected is shown in Table 2.

For an adult with a blood volume of about 5 liters, 15 liters of the same ABO and Rh groups are needed. If enough of the proper A or B group is not available, O blood may be used after the anti-A and anti-B agglutinins have been neutralized with Witebsky's AB substances.

Usually 30 donors are necessary. The blood is collected in bottles containing citrate solution.

Serious reactions are prevented if 2 mg. of heparin per kilogram of body weight is given.

Blood is withdrawn from the patient through a plastic catheter in a superficial vein either after cutdown or through a large-bore needle, with the tip pushed up into a larger vein.

An electric pump of Dausset and Moulinier is connected to the catheter and to the donor's blood flask and the used blood receptacle. Blood is drawn at any desired speed, usually about 300 cc. in five minutes. The engine is then reversed to transfuse the patient with donor's blood through the same route. The maneuver is repeated until the desired number of liters is given. Usually an hour is required for children and from two to four hours for adults.

Chills and urticaria occur more frequently with exchange transfusions than with ordinary transfusions, but are not serious. Occasionally the patient's temperature is increased for a day or so.

Replacement transfusions of moderate amounts, about 5 liters, repeated every second or third day, withdraw sufficient urea to enable the patient to survive the critical stage of anuric nephritis. Three months is usually necessary for complete recuperation.

EARLY DIAGNOSIS OF FEMORAL THROMBOSIS is facilitated by the presence of three dilated veins over the tibia. Gerald H. Pratt, M.D., of New York University, New York City, has observed the "sentinel veins" in more than 80% of patients with pathologic clotting and believes the dilated vessels constitute the earliest objective sign of deep vein thrombosis. The sentinel veins are small, superficial, and unsupported by musculature and therefore dilate long before the main veins.

J.A.M.A. 140:476-477, 1949.

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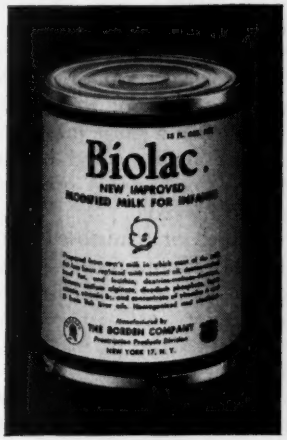

"Baby Talk for a Good Square Meal"

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THE NEW IMPROVED BIOLAC

Baird's Anesthesia for Infants

CHRISTINE F. WEBSTER, M.D., AND FREDERICK H. VAN BERGEN, M.D.*
University of Minnesota, Minneapolis

IN general, the difficulties encountered with the use of anesthetics in infants are similar to those met in adult patients. However, the smaller size of the infant reduces the margin of error and special precautions are necessary.

The infant's high metabolic rate increases the oxygen demand in relation to the small respiratory system. With normal respiration the 21% oxygen content of room air is adequate. When a gauze mask is used for the open drip method of anesthesia only 16% oxygen is provided. This leads to hypoxia.

A closed or semiclosed system permits the administration of sufficient oxygen. To provide the necessary margin of safety, 35% oxygen should be delivered to the patient. To do this and allow for dilution by gas expired from the lungs, oxygen should comprise 50% of the fresh gases entering the closed system.

Even a small mask increases the dead air space, which in the infant represents a much larger percentage of the tidal volume than in the adult. The infant's breathing becomes deep and labored, and exhaustion may quickly appear. Respiratory dead air space may be halved by tracheal intubation and a patent airway assured.

Christine F. Webster, M.D., and Frederick H. Van Bergen, M.D., find that many problems are obviated by using Baird's solution for induction and equal parts of nitrous oxide and oxygen by tracheal tube for maintenance of anesthesia. The procedure requires a physician anesthesiologist.

A reliable intravenous route must be maintained, usually requiring preoperative surgical exposure of a vein.

Baird's solution, a mixture containing 25 mg. of pentothal and 5 units of curare (d-tubocurarine chloride) per cubic centimeter, is given in 0.5-cc. doses through intravenous tubing using a three-way stopcock every three minutes until the patient falls asleep. Then 100% oxygen is given by mask and Baird's solution continued until breathing is almost entirely diaphragmatic.

Intubation is then performed, using a Magill oral tube No. 00, 0, or 1, which is 10.5 to 12 cm. in length. The largest diameter easily inserted is employed. Trauma from the procedure is a possibility, but in 27 infants anesthetized by this method laryngeal edema occurred in only 3 cases and was slight. The tracheal tube is connected to a semiclosed system using soda lime to remove carbon dioxide.

Nitrous oxide and oxygen are given at the rate of 500 cc. per minute. Respiration may be regulated and augmented by manual control of the respirator bag. Little additional Baird's

* Pentothal-curare mixture with endotracheal N_2O and O_2 in infants. Bull. Univ. Minnesota Hosp. 20:525-533, 1949.

solution is required and the anesthesia is discontinued well before surgery is completed to assure return of reflexes before the tracheal tube is removed.

At the end of the operation the nitrous oxide is washed from the lungs by giving 100% oxygen. Secretions are aspirated from mouth, pharynx, and trachea, and the tube is removed.

A solution of ⅓ of normal saline and ⅔ of 5% glucose is given intravenously throughout the operation.

Prevention of Amputation Neuroma

STEPHEN TENEFF, M.D., ITALY*

PAIN in an amputation stump is usually of nervous origin. Neuroma develops at the severed nerve end when neurofibrils are compressed and strangled by connective tissue. If healing is delayed or if the wound has been infected, the neuroma may be imbedded in the cicatricial tissue of the stump.

Implantation of the cut nerve end into nearby muscles prevents terminal scarring and formation of neuroma and enables the neurofibrils to make physiologic connections with the muscle fibers.

Nerve implantation was employed by Stephen Teneff, M.D., of the University of Turin, Italy, in 6 cases of low- or mid-thigh amputation. Stumps were painless in every instance. In each case after separation of the muscle fibers for a few millimeters, the sciatic nerve was placed unsutured into the body of the adjacent muscle, usually the biceps femoris.

Experiments in rabbits indicate that ten days after operation the nerve stump becomes securely attached to the muscles at the implantation site. Within about twenty-five days, neurofibrils penetrate the narrow zone of loose scar tissue in all directions, separate into fasciculi, and filter into the muscle fasciculi and between the loose connective and intrafibrillar tissue.

From sixty-five to seventy days after operation, the fasciculi of neurofibrils separate and single neurofibrils become firmly attached to the muscle fibers, without trace of connective tissue proliferation.

* Prevention of amputation neuroma. J. Internat. Coll. Surgeons 12:16-20, 1949.

Surgical Treatment of Cardiospasm

RODNEY MAINGOT, M.D.*
Royal Free Hospital, London

An esophagus deformed by persistent cardiospasm may be restored to natural shape by incising the constriction down to the mucosa.

Abdominal approach and a variation of Heller's method offer the easiest, safest, and most satisfactory technic, finds Rodney Maingot, M.D., and brought excellent results in 37 of 39 cases not benefited by dilatation. Alternative operations are esophagogastrostomy or esophagocardioplasty.

Habitual spasm of the gastric cardiac sphincter often begins with emotional strain and is most common in the third or fourth decade. A terminal segment of esophagus 3 to 6 cm. long may narrow to a diameter of 1 or 1.5 cm.

As food lodges above the constriction, the tube gradually expands, thickens, and lengthens, taking various forms with passage of time. The dilated sac is fusiform, then flask shaped, and finally sigmoidal (Fig. 1).

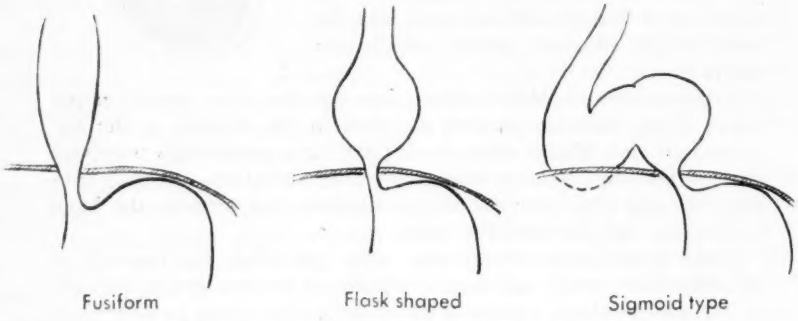
Cardiospasm must be distinguished from reflex spasm, benign stricture, peptic ulcer, congenital stenosis, and cancer.

The chief manifestations of cardiospasm are dysphagia, regurgitation, and retrosternal pain. During excitement or depression spasm is intense.

The lack of food causes anemia, weight loss, and eventually severe inanition.

Roentgen examination after a barium meal shows complete or incomplete blockade. The lower esophagus is narrowed and ends in a rounded cone, nipple, or stringlike process pointing to the left below the diaphragm.

Figure 1. Progressive development of esophageal sac



* Surgical treatment of cardiospasm. Postgraduate Med. 5:351-360, 1949.

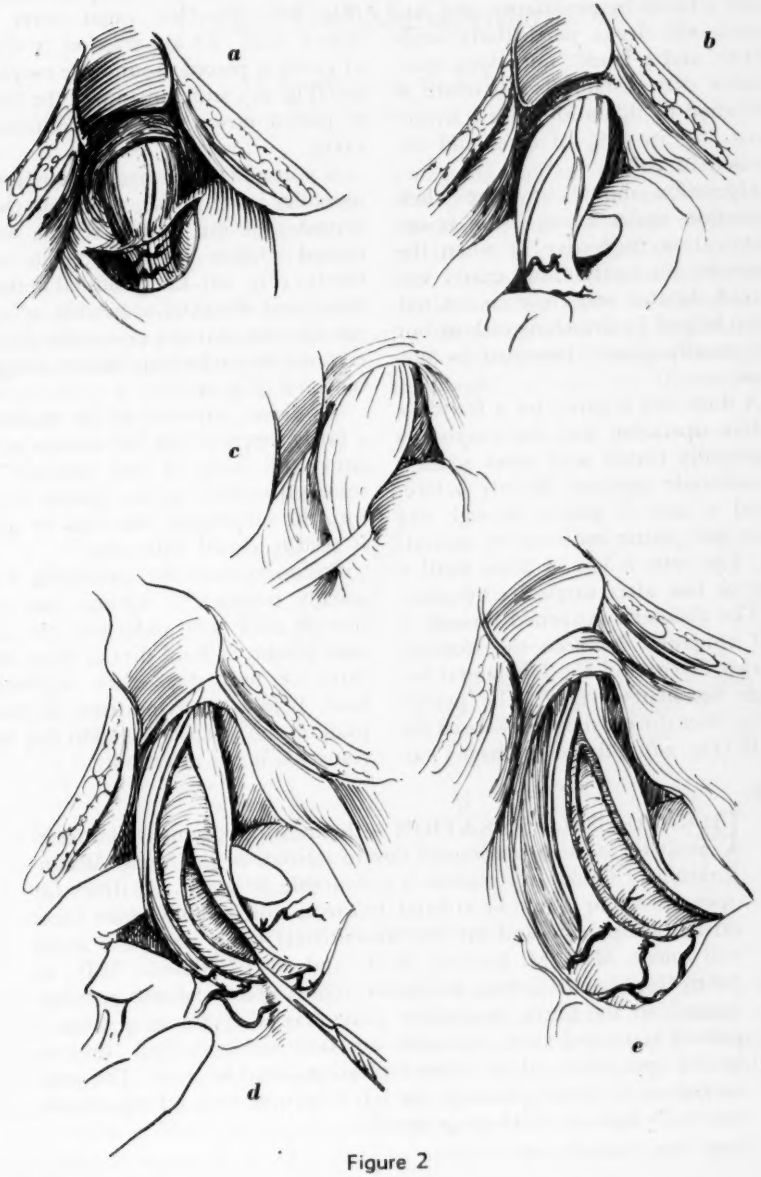


Figure 2

An early stage of tension is sometimes relaxed by psychiatric care, antispasmodic drugs, particularly octyl-nitrite, and a bland, nutritious, non-residue diet. Established stricture is abolished by dilatation with a hydrostatic bag in 70% of cases and decreased in 20%.

Operation should be done when dilatation under direct vision is impractical or ineffective or when the diagnosis is uncertain and cancer suspected. Infants and children are not often helped by stretching technic but are usually greatly benefited by surgery.

A fluid diet is given for a few days before operation and the esophagus repeatedly rinsed with weak sodium bicarbonate solution. Shortly beforehand a tube is passed through the nose and gastric contents are aspirated. The tube is left in place until a day or two after surgical correction.

The abdomen is opened through a left epigastric incision, the stomach drawn down, and the left lateral hepatic ligament divided. The peritoneum over the esophagus is incised for 2 in. (Fig. 2*a*) and the esophagus mobilized by blunt and sharp dissection (Fig. 2*b*). The left vagus nerve is drawn aside. To aid traction, a sling of gauze is placed around the esophagus (Fig. 2*c*), and 2 to 4 in. of the tube is pulled down into the peritoneal cavity.

A 4- or 5-in. cut is made through the muscular layers of the esophagus, continued over the cardiac region, and curved slightly upward toward the fundus (Fig. 2*d*). Longitudinal muscle fibers and the thin, somewhat adherent circular coat are cautiously divided until the underlying mucosa bulges outward (Fig. 2*e*).

To detect puncture of the mucosa, a fairly frequent but not serious accident, the body of the stomach is squeezed to force air and gastric juice into the esophagus. Any nick or tear is readily closed with silk.

Postoperatively the esophagus will usually contract to natural size, although after long deformity the sac may persist. A fluid diet is given for three or four days, then semisolid food. Before discharge from the hospital on the seventh or eighth day unrestricted meals are tried.

PERICARDIAL ASPIRATION is the most important initial treatment for cardiac tamponade due to wounds of the heart. Administration of blood and plasma is a desirable adjuvant. Facilities for open operation should be at hand, but with most wounds which cause cardiac tamponade and are not immediately fatal, aspiration alone will suffice. Mark M. Ravitch, M.D., and Alfred Blalock, M.D., of Johns Hopkins University, Baltimore, report 17 cases of stab or bullet wounds in the heart. Aspiration alone was adequate in 9 cases; 1 patient recovered after aspiration but later suddenly died. Two required operation; 5 died before aspiration could be done. The pericardial sac is pierced through the left fourth or fifth interspace parasternally by a 16- or 18-gauge needle.

Arch. Surg. 58:463-477, 1949.

Poison Ivy Management

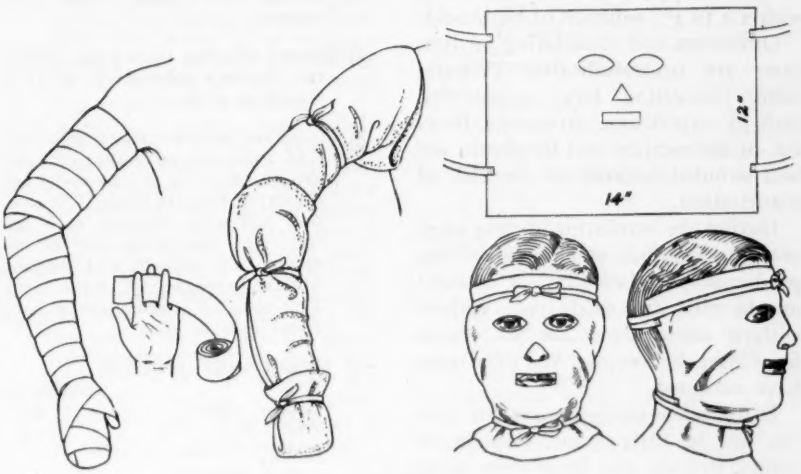
J. B. HOWELL, M.D.*
Dallas

PROPER treatment of poison ivy dermatitis should give at least partial relief of itching, prevent secondary infection, and promote healing.

Itching is best controlled by topical therapy. The type of remedy chosen depends on the stage of the dermatitis. If the affected area of skin is moist with weeping blisters, a wet dressing should be applied. The eruption is not spread by the blister fluid, hence precautions against contact with unaffected skin are unnecessary.

J. B. Howell, M.D., employs 8-ply, 4-in. gauze bandage soaked in any one of several solutions prepared with distilled water (see table) for wrapping an arm or leg affected with poison ivy. Unstarched white sheeting or similar material may be substituted for the gauze bandaging if desired.

The wrapping is anchored between the fingers or toes (see illustration) and wound so as to cover all the involved surface. Large bath towels are then tied over the gauze. The dressing should be kept sopping wet either by resoaking in the solution or by spraying with a syringe.



Method of applying wet dressing

* Suggestions for management of acute poison ivy dermatitis. Texas State J. Med. 45:349-353, 1949.

If the face is involved, a mask is fashioned from several thicknesses of gauze mesh and applied wet to the head of the patient as pictured.

When the eruption involves extensive areas of the body, medicated baths (see table) kept at a temperature of 90° to 98° F. may be taken. The patient remains in the bath for fifteen minutes to several hours at a time.

If wet dressings or baths cannot be employed throughout the day, a lotion, emulsion, or tincture (see table) may be helpful if applied as often as the cycles of pruritus recur. The crusted lotion should be removed once daily by sopping the area carefully with a 2 to 4% solution of boric acid.

Ointments and stimulating medications are contraindicated. Preparations containing local anesthetics, such as nupercaine, surfacaine, butesin, or benzocaine, and thephorin are best avoided because of the risk of sensitization.

During the involuting, drying stage of the dermatitis, creams containing pyribenzamine, benadryl, or histadyl may be tried. Zinc oxide pastes with or without antipruritics are also beneficial after the weeping and exudation have subsided.

Drugs taken orally to alleviate itching are of little value. Aspirin or chloral hydrate may be of some benefit at bedtime. Opiates are not advisable.

If secondary infection does occur, the conventional therapeutic measures should be given. Poison ivy extracts, either parenterally or orally, are of no value in the acute stage of poison ivy dermatitis and may even be detrimental.

A few doses of 40 to 75 r units of superficial unfiltered roentgen rays at five- to seven-day intervals may lessen itching, but usually not as efficiently as topical dermatologic remedies. Calcium gluconate, 10 cc.; strontium bromide, 1 ampule, intravenously every one to three days; or autohemotherapy, 5 to 15 cc., two to three times weekly may break the itching cycles and give slight relief.

SOLUTIONS FOR TOPICAL MEDICATION

Wet dressing solutions

1] Boric acid solution: Add 1 level tsp. boric acid crystals to every 2 glasses of water. Warm water dissolves the crystals more easily than cold water.

2] Burow's solution (1:20-1:30): Add 3 tsp. Burow's solution to every 2 glasses of water.

3] Potassium permanganate solution: Add 1 crushed potassium permanganate tablet (5 gr.) to every 2½ qt. water. Prepare fresh. The solution will stain clothing, tubs, basins, etc.; the stains can be removed from utensils with calcium oxalate, vinegar, or acetic acid. This solution is not suited for use about eyes or face.

4] Alibour water (modified):

	Gm. or cc.
Copper sulfate	0.6
Zinc sulfate	2.0
Camphor water, in sufficient quantity	
To make	100.0

(Dilute 1:16 to 1:25.)

5] Thiersch solution (modified):

	Gm. or cc.
Boric acid	12.0
Salicylic acid	2.0
Menthol	2.0
Alcohol (188 proof)	50.0
Water, in sufficient quantity	
To make	1,000.0

6] Cornstarch solution: Add from 1 to 2 oz. cornstarch to each qt. water.
7] Calgon solution: Add ½ tsp. Calgon to every 2 qt. water.
8] Tannic acid solution (2-5%).

Medicated baths

1] Cornstarch bath: Stir from ½ to 1 lb. of refined, soluble cornstarch (preferably the unperfumed Linit starch) into a tub full of water.
2] Potassium permanganate bath: Dissolve completely from 15 to 45 5-gr. potassium permanganate tablets in 1 qt. warm water. Use 1 qt. of the solution to each tub of water.
3] Tar bath: Use approximately 3 to 4 tbs. Almay tar bath (a preparation of oil of cade in a sulfonated oil) to a tub of water. The patient may be painted with a tar preparation such as liquor carbonis detergens and placed in an ordinary bath, or the tar may be dissolved by stirring into the water 3 oz. of liquor carbonis detergens.
4] Colloid bath: Cook 2 cups of bulk oatmeal in 1 qt. of water from 30 to 45 minutes in a double boiler; allow the mixture to cool for 15 minutes; add ½ cup baking soda; pour the mixture into a gauze bag and tie the top; place in a tub of water at 90 to 96°F. The patient may stay in the tub 30 to 40 minutes expressing the oatmeal mash through the gauze and applying it over the body. The mash should be washed off thoroughly before the patient leaves the tub. Bulk oatmeal is preferable to the precooked type.

Lotions

1] Biborate lotion:

	Gm. or cc.
Sodium biborate	10.0
Starch	15.0
Zinc oxide	15.0
Lime water, Rose water, each in sufficient quantity	
To make	240.0

2] Calamine lotion (N. F. VI).
3] Lotion base:

	Gm. or cc.
Zinc oxide	15.0-20.0
Talc	15.0-20.0
Glycerine	10.0
Distilled water	80.0

4] Burow's lotion:

	Gm. or cc.
Burow's solution	15.0
Zinc oxide	30.0
Talc	30.0
Glycerine	24.0
Lime water	120.0

Emulsions (much improved by homogenization)

1] Bismuth emulsion:

	Gm. or cc.
Bismuth subnitrate	4.0
Zinc oxide	8.0
Lime water, Olive oil, each in sufficient quantity	
To make	240.0

2] Tragacanth lotion:

	Gm. or cc.
Tragacanth	2.0
Glycerin	0.33
Olive oil	60.0
Water, in sufficient quantity	
To make	240.0

3] Calamine liniment (N.F. or Pusey's modification).

Tincture

Glycerine	3%
Tannic acid	3-5%
Alcohol (95%), Distilled water, each in sufficient quantity	
To make	240.0 cc.

Pastes

1] Paste of zinc oxide (N.F.).
2] Paste of zinc oxide to which one or more of the following may be added:

Liquor carbonis detergens	3-10%
Oil of cade	1-3 %
Crude coal tar	½-1 %
Ichthammol	3-10%
Menthol	⅛-½%
Phenol	¼-1 %
Spirits of camphor	2-3 %

When Sunshine Is Harmful

J. M. Hitch, M.D.*
Raleigh, N.C.

The benefits of sunshine are so greatly stressed that deleterious effects for some persons are frequently disregarded.

J. M. Hitch, M.D., warns that, besides the recognized hazards of sunburn, exposure to solar radiation may produce or aggravate skin diseases, especially with abnormal porphyrin metabolism or chronic actinic dermatoses.

Ultraviolet rays are responsible for most of the adverse reactions but a few are caused by heat from infrared rays. Some external chemical agents are photosensitizers.

EFFECTS OF ULTRAVIOLET EXPOSURE

Sunburn—Persons especially susceptible to sunburn should shield the skin by salol, quinine, or tannic or para-aminobenzoic acid in a greaseless base. Some commercial suntan lotions are valuable. Burned areas are soothed by oily or water-miscible emollients. To avoid toxic absorption antipruritic and analgesic drugs should be applied in very low concentration. Chills, fever, dehydration, and shock are combated by warmth, fluids, and sedation.

Photosensitivity—Among external factors that lower resistance to sunlight are coal-tar derivatives such as eosin, erythrosin, and some fluorescent products. Pyrethrum and oil of bergamot—a plant extract often used in perfume, cologne, and mosquito repellants—may cause dermatitis if treated surfaces are exposed to sun.

The chief internal sensitizers are porphyrins in pathologic amounts due to hereditary metabolic defects, liver disease, or drugs, for example sulfonamides. However, the connection between skin disease and excess porphyrin is not always demonstrable.

Hydroa aestivale, or *summer eruption,* begins in the first four years of life and disappears at or soon after puberty. On cheeks, nose, and forehead a red papulovesicular eruption appears in successive crops as long as exposure continues. Itching and burning may be intense and scarring permanent.

Epidermolysis bullosa may be caused by ultraviolet stimulation in adult life. Vesicles and large bullae are seen on a red, hyperpigmented, hairy surface.

Eczema solare, first a papulovesicular inflammation, changes to weeping dermatitis and eventually a chronic verrucous form. Estrogens may help relieve symptoms of the disease in women with normal menstruation and in men.

From porphyrin-induced lesions the skin should be protected by ointments or clothing. Large oral doses of vitamin B complex and sodium para-aminobenzoate are given. Pyribenzamine may be administered systemically or applied over limited areas.

* The sun and the skin. North Carolina M. J. 10:299-304, 1949.

Xeroderma pigmentosum, due to a recessive gene, begins with deep freckling in early childhood. Atrophy, telangiectasis, keratosis, papillomatous growth, and carcinoma develop and are usually fatal before puberty. Sunlight should be avoided and roentgen or radium treatment applied to epitheliomas.

Chronic actinic dermatitis is rapid aging of skin by sunlight, wind, cold, heat, and ordinary senile changes. A patient in the second decade of life may appear old and weather-beaten. Irregular brownish pigmentation on neck, hands, and forearms alternates with patches of vitiligo, atrophy, wrinkling, dryness, telangiectasis, flat keratosis, and finally epithelioma.

Patients should be protected from the weather and keratoses removed by desiccation. All thickened, ulcerated, crusted, or tumorous areas should be biopsied. Routine semiannual examination and treatment of malignant growth may prolong life for many years.

EFFECTS OF INFRARED EXPOSURE

Miliaria rubra, or *prickly heat,* results from blockade of sweat glands by swollen squamous cells. Irritation is relieved by thin clothing, soda and starch baths, alcohol rubs, and local application of lotio nigra or lead and laudanum wash.

Urticaria and *angioneurotic edema* result from either heat or ultraviolet rays. The source is found by tests with a heating pad, infrared and ultraviolet lamps, and sunlight in cool air. Heat sensitivity may be overcome by increasingly warm baths. Antihistamines often give relief but in severe chronic cases sunlight must be avoided.

Erythema ab igne is reticulated erythema due to vascular dilatation by repeated exposure to heat. Diapedesis occurs and when hemosiderin is deposited the process is irreversible.

PRURITUS unchecked by other medication may be temporarily relieved by carbowax ointment containing 2% histadyl hydrochloride, a potent histamine antagonist. In 41 of 104 patients observed by Eugene S. Bereston, M.D., of Johns Hopkins University, Baltimore, itching subsided and some lesions healed as long as treatment was continued, but recurred later. Cases included instances of disseminated or localized neurodermatitis, contact or eczematoid eruptions, and irritation of anus, vulva, or scrotum. No toxic reactions developed.

J. Invest. Dermat. 12:157-158, 1949.

DERMATOPHYTOSIS may be treated effectively with an alcoholic solution of 2.5% 8-hydroxyquinoline. Such a preparation was used in treatment of 40 cases. Kurt A. Oster, M.D., and Milton J. Golden of Bridgeport, Conn., declare that results in light cases appear to be equal to those obtained with other antifungal substances and, in severe cases, superior.

Exper. Med. & Surg. 7:37-45, 1949.

Juvenile Cirrhosis of the Liver

PAUL D. KELLER, M.D., AND WILLIAM L. NUTE, JR., M.D.*
Washington University, St. Louis

CHILDREN may have hepatic cirrhosis at any age. Inherited defect or major derangement in some other organ system may be causative.

In the St. Louis Children's Hospital 40 cases proved by autopsy or operation were seen in twenty-six years.

Paul D. Keller, M.D., and William L. Nute, Jr., M.D., noted several major types. Forms not represented were syphilitic, pigmentary, lipoid, and zooparasitic.

Most cases of *obstructive biliary cirrhosis* result from congenital atresia of extrahepatic bile ducts. The stools are white or clay colored from birth, and jaundice soon appears. Infants usually remain surprisingly well nourished for weeks, but bleeding and portal obstruction eventually develop; the liver becomes palpable and spleen moderately large. Laboratory data show complete obstruction with little if any urinary urobilinogen.

If operation is neglected, death often occurs before the age of eight months. Rare factors are stone in the common duct, enlarged lymph nodes, viscid bile, and pressure from tumor. Hepatic tissues show interlobular fibrosis, bile stasis, and infiltration.

Nodular cirrhosis usually develops in children past infancy. Causes are obscure but possibly include infection, malnutrition, and sickle-cell anemia. In most of 11 cases reviewed, Banti's syndrome was present, at times without anemia.

Most common manifestations are jaundice and gradual swelling of abdomen and legs. Children may have ascites, poor appetite, weakness, gradual weight loss, repeated infection, vague abdominal pain, and nosebleed. Symptoms vary and diagnosis depends on liver biopsy, which should be done by laparotomy. Tissues contain perilobular fibrosis, focal regeneration, and mononuclear infiltration without bile stasis.

Erythroblastosis fetalis may cause hepatomegaly and splenomegaly and varying degrees of cirrhosis. Many who recover probably have residual scars, but the 5 infants observed lived only a few days or weeks. Parenchymal injury of the liver, necrosis, biliary stasis, and hemosiderosis are found. Fibrosis is invariably diffuse.

Congestive cirrhosis in childhood generally follows a long period of intermittent cardiac decompensation and is overshadowed by the primary disease. In 1 case the fibrotic state was due to endophlebitis with partial block of the hepatic vein. The excess fibrous tissue is central to the lobule.

Toxic or postnecrotic cirrhosis is due to such agents as chloroform, salvarsan, carbon tetrachloride, and sulfonamide. The hepatic fibrosis in childhood is the same as in adult life. The liver becomes small and unevenly

* Cirrhosis of the liver in children. J. Pediat. 34:588-615, 1949.

nodular with bands of scar tissue. In the case observed, the liver damage was due to cinchophen contained in tablets eaten by the child.

Hepatolenticular degeneration is a curious hereditary disease affecting the liver and lenticular nuclei in the brain. A pigment ring may be found at the corneal limbus. Illness begins in late childhood with gradual bulbar palsy, speech disorder, emotionalism, coarse tremors, rigidity, and contracture of hands, wrists, and feet. The mouth sags open and face appears idiotic long before the mind deteriorates to comparable degree. Liver changes are identical with ordinary portal cirrhosis.

Curare and Exercise for Poliomyelitis

W. D. PAUL, M.D., AND O. A. COUCH, JR., M.D.*

THE tight, painful muscles encountered in the acute phase of poliomyelitis are best treated by stretching exercises which utilize the full range of motion of the involved joints.

When spasticity is slight, these exercises may be carried out with little discomfort, but when the muscles are strongly contracted, tightness and pain usually prevent stretching sufficient to achieve good results. The use of curare permits satisfactory physical therapy.

W. D. Paul, M.D., and O. A. Couch, Jr., M.D., of the State University of Iowa, Iowa City, employ curare in the acute stages of poliomyelitis to relax muscles enough for adequate stretching. During the first day of therapy, 1.2 units of Intocostrin per kilogram of body weight is given every eight hours, then 0.9 unit per kilogram every eight hours. Passive exercises are given by physical therapists thirty to forty-five minutes after each dose.

When curare is used, hyperextension must be avoided to prevent tearing the muscle fibers. Also, if the amounts and frequency of administration of curare are increased, respiratory distress is a possibility, especially when d-tubocurarine in oil is used.

Curare is used only to facilitate movement of the affected muscles and has itself no specific curative effect in poliomyelitis.

Curare and proper muscular exercises were employed for 24 patients with acute poliomyelitis. All were free of pain and muscle spasm within seventeen days. Another group of 21 patients with disease of similar severity was treated with the Kenny method of continuous hot pack routine without curare. Muscles could not be fully extended in most instances, and pain and tightness often persisted as long as five months.

* Preliminary report on the treatment of anterior poliomyelitis with exercise and curare. Arch. Phys. Med. 30:277-285, 1949.

Heart Disease and Pregnancy

JOHN J. SAMPSON, M.D.*
University of California, San Francisco

WOMEN with heart disease are bearing children more safely than ever before. Among 119 deliveries in a university clinic in the past twelve years, not one mother or baby died.

In all cases the paramount consideration is maternal risk of death or of permanent invalidism.

Hysterotomy is seldom warranted and, after the third lunar month, gestation is not often terminated by operation. After the eighth month, induced labor is rarely necessary as the circulatory burden then does not increase appreciably.

Unfavorable circumstances are active rheumatic fever within six months before conception, arrhythmia indicative of advanced cardiac disease, and age over thirty-five years.

Valvular lesions are relatively unimportant unless circulation is mechanically obstructed.

Cardiac dysfunction of Class I or II is relatively unimportant, but mortality rates almost triple with Classes III and IV. Hypertension involves no risk unless toxemia develops. Heart failure during pregnancy, unless due to a transient cause such as pneumonia, is an interdiction to subsequent childbearing.

Ordinary labor causes no particular strain, but when Class III or IV impairment already prevails a sudden disturbance during delivery may easily precipitate heart failure; if such an event is known to have occurred, cesarean section may well be the advisable procedure.

Reasons for and against continued gestation must be balanced with care in each case, explains John J. Sampson, M.D.

For instance, a woman in the second month of pregnancy had Class III cardiac involvement. She had been more dyspneic since birth of the first baby and probably would not be able to care for two children. Rheumatic heart disease, which started thirteen years previously, had recently recurred.

But a second child was much desired, her religious beliefs opposed abortion, and the rheumatic exacerbation had subsided. She was certain of good medical supervision and household help before and after delivery. Pregnancy was allowed to continue to term, the heart did not fail, and no complications were encountered.

During pregnancy complete bed rest, digitalis, diuretics, and a low-salt diet may be required for women with heart failure. Quinidine is given to prevent or correct arrhythmia; antibiotics are used for infection. Oxygen may be needed, especially during labor.

Nitrous oxide is never given for deep anesthesia.

Bed rest should be continued post

* Heart disease as a complication of pregnancy. California Med. 70:383-390, 1949.

partum longer than usual. Oxytocic drugs may raise venous pressure dangerously and are not used.

As the circulation is likely to be overloaded by postpartum return of water to the circulatory system with consequent transient increase in blood volume, a mercurial diuretic or bloodletting measures may sometimes be necessary.

Any deviation from the natural circulatory changes of pregnancy may show imminent heart failure. Vital capacity, which should be measured often, commonly increases by about 10 to 15%.

Venous pressure in the arms rises only 1 or 2 cm. of water after the twenty-fifth week but increases in the legs for the last thirty weeks.

Circulation time diminishes from the twentieth to the thirtieth week. Pulse pressure is elevated in the last four months; blood pressure falls slightly in the second trimester and recovers in the third.

During gestation blood volume increases and hemoglobin percentage consequently drops. Immediately after delivery blood volume shrinks. Hemoconcentration is recovered in the next three to five days.

RELIEF FROM DYSMENORRHEA can often be obtained with magnesium gluconate. W. J. Rawlings, M.D., of Melbourne found that oral administration alleviated premenstrual distress for 17 of 19 patients, and menstrual pain for 14 of 18. Magnesium gluconate is given in doses of 1.3 gm. daily. For premenstrual distress, treatment is started seven days before onset of the menses and continued through the first day of menstruation. Treatment for menstrual distress is begun four days before onset and continued for the first three days of the period. If relief is not prompt, two or even three doses a day are prescribed.

M. J. Australia 1:61-64, 1949.

BASAL METABOLISM DURING MENOPAUSE decreases because of lessened thyroid activity, asserts Mary E. Collett, Ph.D., Western Reserve University, Cleveland. Small doses of estrin raise the BMR slightly and reduce hot flashes, but large doses depress the BMR and increase hot flashes. Basal metabolic rates covering 30 cycles were determined for one subject over a thirteen-year period together with eighteen tests at age sixty. At age thirty-five the cyclic BMR pattern showed two low points marking the menstrual period and ovulation, and two high areas presumably indicating periods of estrin and progestin secretion. The pattern was the same at forty-five but the progestin period was shorter. At forty-six and forty-seven, estrin and progestin periods became irregular and finally the progestin period disappeared.

J. Applied Physiology 1:629-636, 1949.

Medical Forum

Discussion of articles published in MODERN MEDICINE *is always welcome. Address all communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Basket for Removing Ureteral Stones*

TO THE EDITORS: I agree with Dr. George R. Livermore's condemnation of using metal instruments for removing ureteral stones. Dr. Livermore's comment appeared in his discussion of Dr. W. P. Morton's basket for that purpose (Apr. 15, 1949, p. 76).

To insert a stone catcher into an otherwise functioning ureter and then drag a concretion through the narrow passage lined with delicate epithelium is no more sensible than the anal insertion of a grasping forceps to remove ordinary rectal residues.

New risks are added each time someone has glamorized another gadget and an instrument maker has been found to promote its sale. These fancy proposals have not even brought a satisfactory method for dilating the ureter to permit easy insertion of the gadgets intended to bring out a stone.

Ordinarily, the ureter permits passage of calculi small enough to enter the channel if proper dilatation by cystoscopic approach from below is provided. Urologists agree on this. However, the instrumentarium and methods of dilating are usually so complex that it is impossible to avoid undue pain, trauma, and infection. That being the case, it may be permissible to resurrect a cystoscopic procedure, improvements on the so-called Braasch type of direct water vision cystoscope.

Back in July 1928, the *Journal of Urology* published my article on "Ureteral Dilating Bougies and Cystoscope," which describes the simplest and, to this date, safest instruments for dilating the male ureter to facilitate passage of a calculus. The cystoscopic sheath is of the direct water vision type with a large oval lumen, unobstructed inside by any ridges. The catheterizing attachment extends the lumen of the sheath proximally by about 36 mm. It has a large cutout on one side covered by an encircling rubber dam, secured against leakage by an external compression sheath. A perforation allows insertion of the bougie or catheter directly into the lumen of the cystoscope. The proximal end is closed with a convenient bubble draining ocular which permits visual control.

The bougies are of the Garceau type, but larger, and have shorter, stouter conical tips, tapering quickly to full size at about 6 or 7 cm., then continuing the full length in sizes of 12 to 18F. The tips of the bougies are well rounded but not bulbous, so that they are not likely to get caught in a fold of the ureteral mucosa, as often

*MODERN MEDICINE, Jan. 15, 1949, p. 71.

happens with more pointed catheters. Consequently, the tip usually finds its way around a calculus where an ordinary catheter would be blocked and provides added dilatation where it will do the most good. Immediate drainage with relief of the renal colic usually results.

The patient remains ambulatory. Time is allowed for the calculus to drop down and be expelled into the bladder.

If the obstruction recurs, the dilatation may be repeated. If after an interval of ten to fourteen days, the calculus has not been expelled, dilatation is done with a larger bougie. The tip of the bougie may previously be dipped into melted beeswax to obtain scratch marks indicating the presence of the calculus. Bougies sizes 16 and 18F should follow if necessary but only at intervals of twelve to fourteen days in order to give the ureter a chance to recuperate. Common sense must be used, depending on how readily the ureter yields to dilatation. By introducing only one bougie at a session, trauma and infection are kept at a minimum.

This type of direct water vision cystoscope is better tolerated and less painful in the neck of the bladder than the ordinary catheterizing cystoscope with indirect telescope. Deep sedation and anesthesia are rarely needed. The large, straight bougie is the most effective ureteral dilator. It cannot break or get caught. It never snags the tissues. You can always pull it out intact—not so with bulbs and mechanical dilators.

The catheterizing attachment is really the key to the whole procedure, which makes it possible to get an 18F bougie into the ureter through a 26F cystoscope, though the 28F sheath makes it easier. The attachment is so simple in construction that I have always made that part myself.

The bougies were made specially by Porges in Paris. If someone can persuade our American ureteral catheter manufacturers to make similar bougies, I will be glad to provide details. As it is, the largest ureteral catheter can be inserted through this cystoscope with greater facility and with less discomfort to the patient than with any other cystoscope. The American Garceau catheters, 12 and 14F may be used, preferably with a suitable stylet, to start the dilatations. Ultimately sizes 16 and 18F are essential when the stone is large and slow in passing. For permanent results in dilating ureteral strictures, an 18F bougie is necessary.

I am not trying to sell cystoscopes but, like Dr. Livermore, would like to help urologists do better and safer cystoscopies. The technic can be standardized. The demand for making the instruments must come from the profession.

RAYMOND L. SCHULZ, M.D.
Los Angeles

"Hmmm."

Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the Clue requires unusual acumen and luck; from Part II, perspicacity; from Part III, discernment.

Case MM-148

THE CLUE

ATTENDING M.D: I would like you to see a seventy-year-old man who has been losing weight and feeling tired for seven months. Three months ago he had nausea and abdominal pain and since then diffuse, indefinite abdominal discomfort has persisted. Three weeks ago jaundice appeared with no colic and within the past few days he has vomited a small amount of blood. There is a palpable mass in the upper abdomen.

VISITING M.D: What is the nature of this mass?

ATTENDING M.D: I believe it is the liver. The left lobe of the liver is harder than the right and x-ray studies of the gastrointestinal tract, while not revealing intrinsic abnormality, show a mass compressing the stomach and duodenum.

VISITING M.D: Are there other pertinent facts in the history?

PART II

ATTENDING M.D: There was a positive guaiac reaction of one stool specimen. The patient has become more fatigued and has lost 40 lb. Roentgenograms of the abdomen reveal several gallstones; the liver edge just above the umbilicus and left lobe is distinctly outlined. There is some ascitic fluid.

VISITING M.D: Of course at this age, with progressive illness of about six months and a mass, one thinks of cancer. I do not believe it is carcinoma of the head of the pancreas. It could be a primary hepatoma. Is the patient alcoholic or does he have cirrhosis of the liver?

ATTENDING M.D: We have no evidence of cirrhosis of the liver. For a number of years the patient has drunk whiskey, but not excessive quantities, 4 or 5 highballs a day at the most, and usually only 1 or 2.

VISITING M.D.: One must, of course, consider an amebic infection of the liver, with abscess and necrosis. Yet, that does not seem likely.

ATTENDING M.D: We know he has gallstones, but the story is not that of painful obstruction due to common duct stone.

VISITING M.D: What are the laboratory findings?

PART III

ATTENDING M.D: The total proteins are 6 gm. per 100 cc. with 3 gm. of globulin and 3 gm. albumin. Alkaline phosphatase is 19 Bodansky units per 100 cc. Cephalin floccula-

(Continued on page 78)

For mixed infections

Over 500 cases of impetigo treated with Furacin have now been reported in the literature. Several investigators report good results in over 90% of their cases, often within an average of seven days. Of 30 cases of ecthyma reported, good results were obtained in 24 within the average time of eight to ten days. Sensitization averaged under 5 per cent. Furacin® brand of nitrofurazone is available as Furacin Soluble Dressing (N.N.R.) and Furacin Solution (N.N.R.) containing Furacin 0.2%. These preparations are indicated for topical application *in the prophylaxis or treatment of infections of* wounds, second and third degree burns, cutaneous ulcers, pyodermas and skin grafts. *Literature on request.*

EATON LABORATORIES, INC., NORWICH, N. Y.

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Experientia

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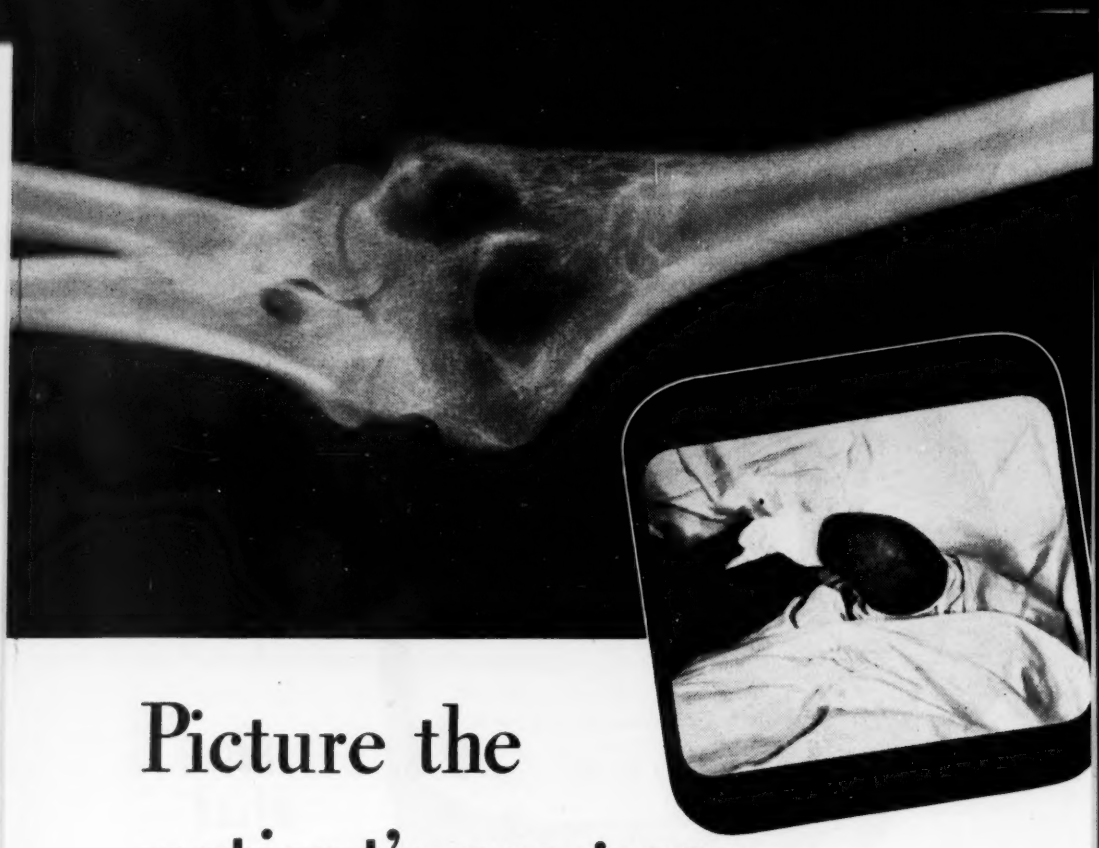

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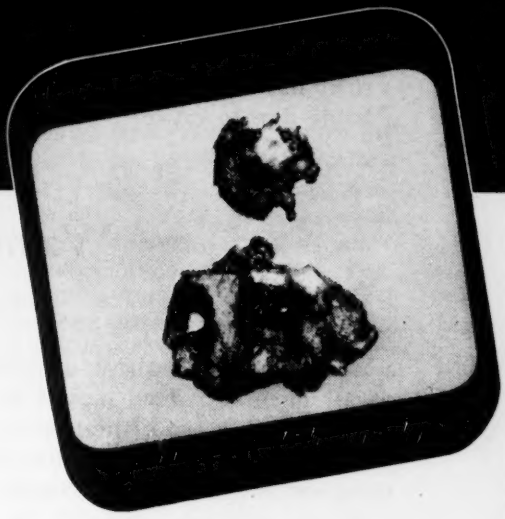

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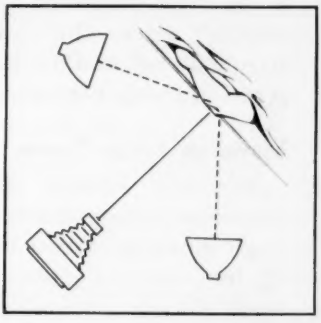

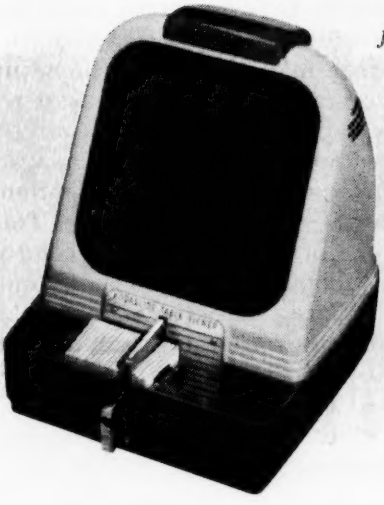

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tion is 3 plus. Prothrombin time is 22 seconds, normal is 18. The x-ray examination of the esophagus did not reveal varices.

VISITING M.D: What has been the color of the stools?

ATTENDING M.D: Some stools were quite pale; others apparently contained pigments.

VISITING M.D: *(Examining patient)* I cannot feel the spleen. The prostate is normal in size. I believe the patient has obstructive jaundice probably due to cancer.

ATTENDING M.D: The hemoglobin is 14 gm. per 100 cc.; white blood cell count is 15,000; urine contains bile. Serum cholesterol is 200 mg. and the nonprotein nitrogen 35 mg.

VISITING M.D: This does not suggest extensive liver damage. I believe the patient has a hepatoma. I would suggest a needle biopsy of the liver.

PART IV

ATTENDING M.D: Biopsy reveals hepatic cirrhosis of alcoholic type and hepatoma.

Washington Letter

(Continued from page 44)

a constitutional majority, a majority of all members. That would be 49 senators or 218 representatives. However, the plan dies automatically if Congress adjourns before August 19.

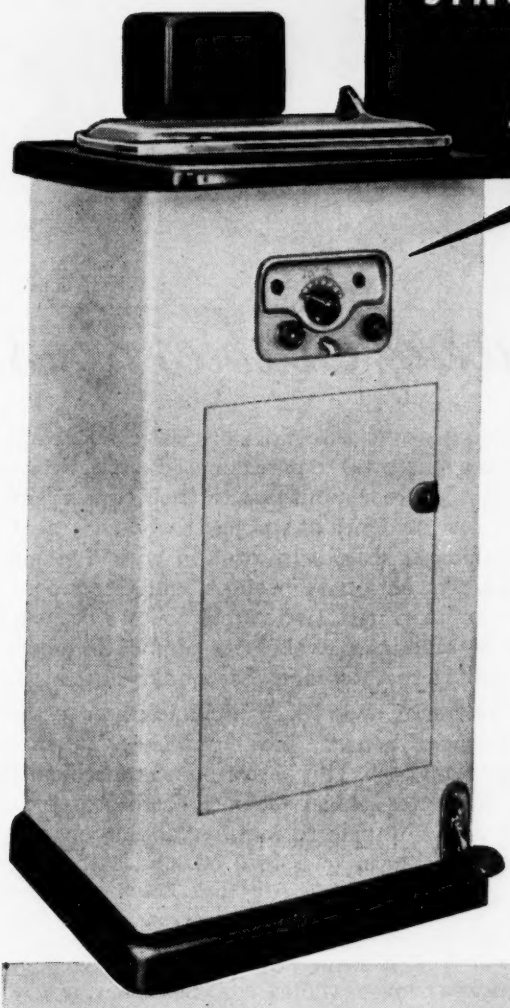
If the plan goes through, it will mean settlement by presidential edict of an issue on which Congress itself couldn't agree. The creation of a department of welfare has been proposed at the last three congresses.

Movie on Breast Cancer

National Cancer Institute and American Cancer Society are producing a movie on breast cancer, intended for women's clubs and organizations. It is a color film and will include a simple technic for periodic self-inspection of the breasts. Also to be released for distribution in the fall is a professional film of thirty minutes depicting technics of breast cancer diagnosis. . . . Studies at the Cancer Institute indicate that eclampsia, which accounts for one-fourth of all maternal deaths in this country, has some relation to hormonal or endocrine imbalance. Dr. Alexander Symeonidis is conducting experiments on the subject. . . . The institute has granted $8,500 to the California Public Health Department to study the factors in the human environment that may influence the development of lung cancer. The employment records of 500 lung cancer cases will be studied and, when a possible occupational exposure is indicated, continuing investigations will be made. This was one of 36 special cancer control grants totaling more than half a million dollars. . . . Seventy-four of the country's 79 medical schools and 36 of the 40 dental schools are receiving grants in cancer training programs. The grants, of $5,000 to $25,000, may be renewed annually.

You Can Forget About Sterilization

Ritter's SYNCHRONOUS TIMER Sterilizes Automatically!



● Now you can concentrate on your important income-producing work. This amazing synchronous timer makes your Ritter sterilizer a faithful, completely automatic servant. The timer operates *only* when water reaches the boiling point. You know positively that your instruments have been fully sterilized for the required time. Why bother with sterilization details? Let a new Ritter DeLuxe Hydromatic Sterilizer take care of them for you, *automatically.*

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As the Incidence of Scabies Rises

The specific, positive scabicidal properties of Kwell Ointment are employed to particular advantage during the warm summer months with their concurrent increase in the incidence of scabies. Kwell Ointment usually eradicates scabies infestation with a single application. Its action is prompt, and secondary dermatitis or skin irritation rarely follows its use. Its extreme blandness makes its application permissible even in the presence of secondary infection.

Kwell Ointment owes its scabicidal action to the gamma isomer of benzene hexachloride—0.5% in a vanishing cream base. This parasiticide is specifically lethal for Sarcoptes scabiei yet in the concentrations employed it is nontoxic to man. Available on prescription at all pharmacies in 2 oz. and 1 lb. jars.

The virtues of Kwell Ointment are discussed in these articles:

1. Wooldridge, W. E.: The Gamma Isomer of Hexachlorocyclohexane in the Treatment of Scabies, J. Invest. Dermat. *10*:363 (May) 1948.

2. Niedelman, M. L.: Treatment of Common Skin Diseases in Infants and Children, J. Pediat. *32*:566 (May) 1948.

3. Cannon, A. B., and McRae, M. E.: Treatment of Scabies, J.A.M.A. *138*:557 (Oct. 23) 1948.

4. Goldman, L., and Feldman, N. D.: Human Infestation with Scabies of Monkeys, Arch. Dermat. & Syph. *59*:175 (Feb.) 1949.

5. Fox, E. C., and Shields, T. L.: Résumé of Skin Diseases Most Commonly Seen in General Practice, J.A.M.A. *140*:763 (July 2) 1949.

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Short Reports

SURGERY

Shunting Effect of Trauma on Gastric Circulation

Circulation of blood through the vessels of an ulcerated stomach is modified by surgical operation. When the peritoneal cavity is opened and the stomach is handled, arteriovenous anastomoses open in the region of the submucous plexus of vessels and stop active circulation through the small vessels of the mucous membrane. The shunting effect of trauma was demonstrated by Drs. A. E. Barclay and F. H. Bentley of the Nuffield Institute for Medical Research, Oxford, England. Arteries of pieces of stomach removed at operation and of cadaveric stomachs were injected with colloidal silver iodide. Cadaveric specimens revealed a rich vascular network of fine arterioles and capillaries running perpendicularly through the gastric mucosa toward the surface; these vessels were not filled in the operatively removed specimens. At 6 operations surface veins were observed from the moment the peritoneal cavities were opened. Within two or three minutes the veins coursing along the anterior wall of the stomach changed from purple-blue to dusky pink. Oxygen saturation of blood before and after the color change was 74% and 91%, respectively, confirming a belief that the blood passed directly from the arterial to venous side through an arteriovenous shunt. The anastomoses are probably under control of the autonomic nervous system, for when the sympathetic outflow to the stomach was blocked by spinal anesthesia the shunts did not open and the mucosal vessels were completely filled.

Gastroenterology 12:177-183, 1949.

EDUCATION

Austrian Physicians Idle

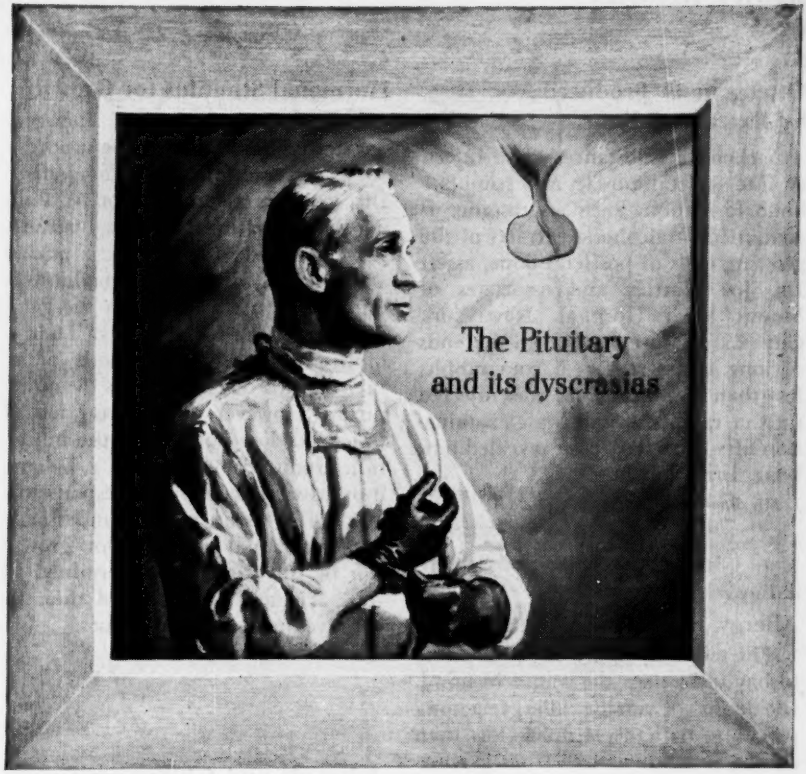
Because of overcrowding in the medical profession Austrian high school students have been asked by the Association of Physicians not to enter medicine. Some 1,500 doctors are said to be unemployed at present.

PHYSICAL MEDICINE

Intraarticular Temperature as Measure of Joint Reaction

Accurate evaluation of the degree of synovial inflammation with rheumatoid arthritis is facilitated by determination of the intraarticular temperature. Drs. Steven M. Horvath and Joseph L. Hollander of the University of Pennsylvania, Philadelphia, assert that intraarticular temperatures correlate with clinical activity of arthritis more closely than surface temperatures over the joint. With degenerative joint diseases, intraarticular temperatures are higher than would be anticipated from the relative arthritic activity. Temperature within the joint falls when hot packs are applied over the joint and rises with application of cold packs. These responses are greater in winter than in summer.

J. Clin. Investigation 28:469-473, 1949.



Harvey W. Cushing, M.D. 1869-1939

Destined to greatness by his intellect, character and energy, Harvey Cushing gave much to his fellow men and in return he received tremendous success and acclaim. A great scientist, he nevertheless was a master of the art of clinical medicine. Although pre-eminently known as a neuro-surgeon, he made fundamental researches in the functions of the endocrine glands. Particularly outstanding were his investigations of the secretions of the anterior pituitary lobe and their clinical effects.

Harvey Cushing was born in Cleveland, April 16, 1869. He graduated from Yale College in 1891 and from Harvard Medical School in 1895. He interned at Massachusetts General Hospital and then became resident in surgery under the famed Doctor Halsted at the newly opened Johns Hopkins Hospital. Early in his career he determined to enter the then infant field of neurological surgery. He went abroad and studied under Horsley, Kocher and Sherrington. On his return he did experimental work at Johns Hopkins and published his epochal book, "The Pituitary Gland and Its Disorders". In 1912 he was made Professor of Surgery at Harvard and head of the surgical service at Peter Bent Brigham Hospital. Here he worked prodigiously for many years developing the field of neurological surgery, investigating endocrine function, and writing pertinent articles and monographs.

ORTHOPEDICS

Osteogenesis Produced by Extract of Bone

A chemical substance, when injected into skeletal muscle, may stimulate bone formation. Such a substance is contained in alcoholic extracts of the growing ends of postfetal bone, assert Dr. Joe Hartley and associates of Mount Sinai Hospital, New York City. Extract prepared from the ends of long bones removed from rabbits less than five weeks old was injected into 11 rabbits. Microscopic examination fifty-three days later revealed new bone formation in 3.

J. Mt. Sinai Hosp. 15:383-387, 1949.

PSYCHIATRY

Allergy in Psychotic Reactions

The mentally ill are less susceptible to hay fever than the sound in mind. Incidence of major allergy among psychotic patients is much less than among individuals free from psychiatric disorders. At the height of the ragweed season 1,875 patients and 757 healthy employees of the Veterans Administration Mental Hospital, Coatesville, Pa., were examined for symptoms and signs of major allergy. Positive physical findings of allergic response were found in 13% of the employees, report Drs. Robert M. McAllister and Arthur O. Hecker of the hospital staff. Incidence among schizophrenic patients was 2.9%; among manic-depressive patients, 1.4%; and among patients with organic psychoses, 3%. Incidence of allergy among epileptics was 13%, the same as among the healthy employees.

Am. J. Psychiat. 105:843-848, 1949.

METABOLISM

Hormonal Stimulus for Growth

Biologic effectiveness of endogenous steroid hormones may be suppressed by several folic acid antagonists. Drs. Roy Hertz and William W. Tullner of the National Cancer Institute, Bethesda, Md., report that a purine analogue, 2, 6-diaminopurine, inhibits estrogen-induced growth in the genital tract of the female chick. The inhibition is largely reversible by adenine, known chemically as 6-aminopurine. However, as much as 5 mg. of folic acid does not reverse the inhibition produced by 10 mg. of 2, 6-diaminopurine. The degree of response obtained in a tissue which is under maximal hormonal stimulus for growth can be quantitatively determined by folic acid and adenine and their respective inhibitory analogues.

Science 109:539, 1949.

ENDOCRINOLOGY

Adrenals and Glycogenesis

Conversion of protein to glycogen is effected by mediation of the adrenal glands. Glycogenesis is impaired in event of adrenal cortical insufficiency. This metabolic defect may be corrected, suggest Dr. Jorge Awapara and associates of the University of Texas, Houston, by administration of 17-hydroxydehydrocorticosterone (Compound E). Liver glycogen is increased when adrenalectomized rats are given Compound E. The dicarboxylic amino acids are decreased and alanine is increased. Changes in amino acid concentration and distribution in muscle are not impressive.

Endocrinology 44:378-383, 1949.

When complaints of bloating and belching suggest dyspepsia caused by biliary insufficiency, the choleretic-digestant-laxative action of ZILATONE Tablets usually provides prompt relief.

ZILATONE Tablets combine bile salts compound with extract of cascara sagrada, phenolphthalein, nux vomica, pepsin, pancreatin, and capsicum. They improve the quantitative and qualitative supply of bile, aid fat metabolism, assist carbohydrate digestion, and stimulate intestinal motility and bowel evacuation.

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NEUROSURGERY

Uptake of P^{32} by Cancer of the Brain

Avidity of malignant brain tumors for circulating inorganic phosphate may make possible significant intracellular concentrations of radioactive phosphorus. Dr. Theodore C. Erickson and associates of the University of Wisconsin, Madison, gave intravenous inorganic phosphate containing P^{32} to 10 patients with malignant intracranial tumors. Some biopsy specimens had nineteen times as great concentration of radioactivity in tumor tissue as in healthy brain tissue. Chemical fractionation of tissue phosphorus revealed a small but significant concentration in the nucleoprotein of both cytoplasm and nucleus.

J. Lab. & Clin. Med. 34:587-591, 1949.

PUBLIC HEALTH

WHO Membership

Ecuador and Costa Rica have recently joined the World Health Organization, which now has a membership of sixty.

GENETICS

Predetermination of Sex

The time factor between insemination and ovulation apparently directly influences the sex of offspring. The sex ratio is presumed to be approximately equal in the middle of the fertility period; female preponderance is probable in the early stages, male in the later. Studies in rats reveal that delaying insemination until varying hours after the expected time of ovulation, increases the ratio of male to female offspring from 100.1:100 to between 149:100 and 225:100. Drs. Deryl Hart and James D. Moody of Duke University, Durham, N.C., believe that the same factor operates in determining the sex of human beings. An analysis of more the 65,000 pairs of dizygotic twins reveals in each year's group approximately 27% more like-sexed than unlike-sexed pairs. This constant surplus is inconsistent with chance alone and probably results from inseminations early and late in the fertility period.

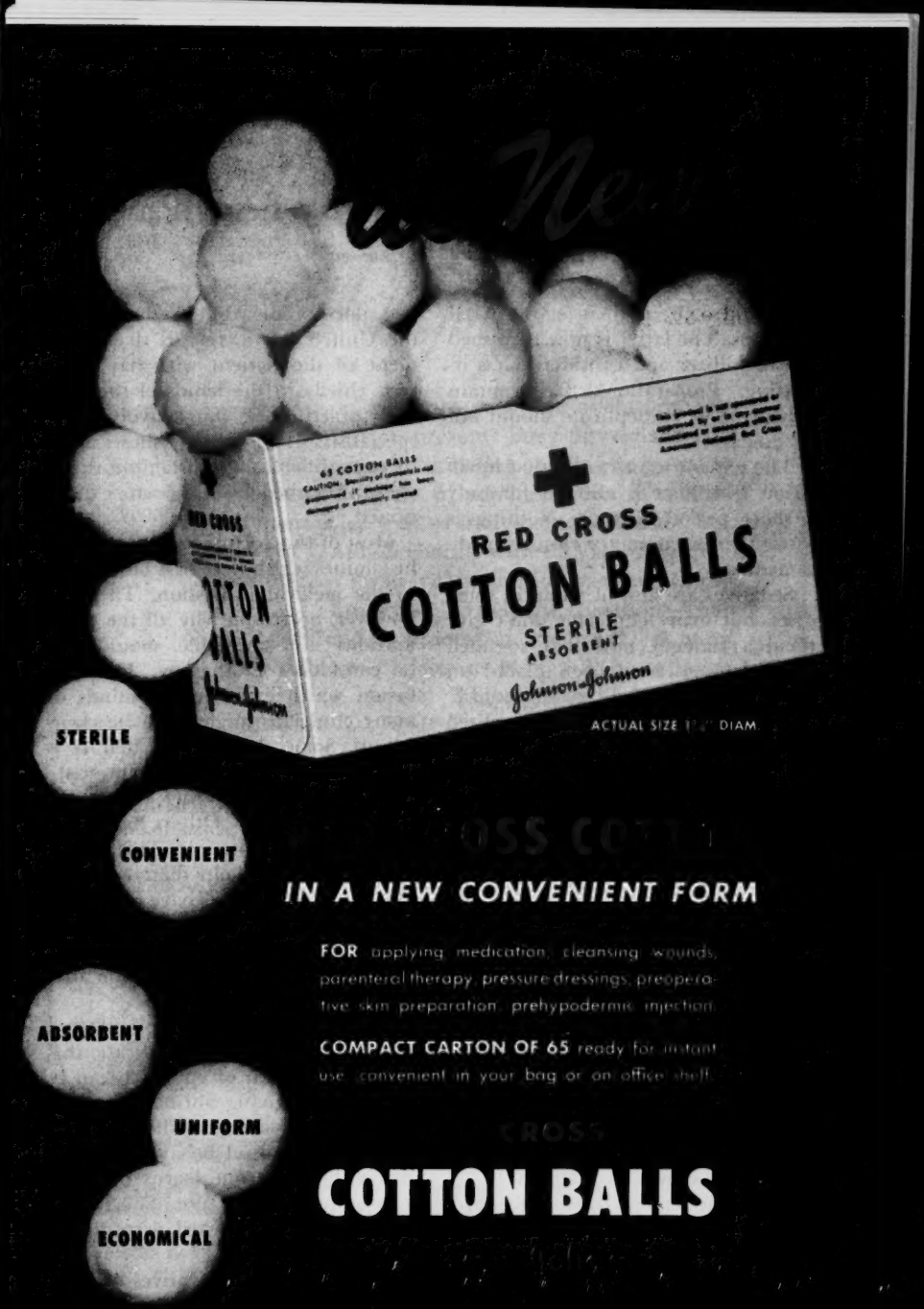
Ann. Surg. 129:550-571, 1949.

EXPERIMENTAL SURGERY

Occlusion of Large Arteries

After aneurysmal dilatation, occlusion of a large artery by metallic band is often unsuccessful because atrophy and erosion of the vessel wall under the band are provoked. The reaction of tissues to polythene has been used by Dr. F. W. Cooper, Jr., and associates of Emory University, Ga., in conjunction with a tantalum band in operations on the aortas of dogs. The fibrosis induced by the plastic consolidates constriction of the band.

Surgery 25:184-190, 1949.



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COMPACT CARTON OF 65 ready for instant use, convenient in your bag or on office shelf.

COTTON BALLS

SPECIAL ARTICLE

What Can Be Done for the Hay Fever Patient?

(Continued from page 50)

tadyl and 0.5% pyribenzamine nasal solutions. The latter is now furnished in a nebulizer and considered less irritating. Preparations that contain ephedrine or epinephrine should not be used.

The patient must realize that instillation treatment is allowed for only a short period of time. Nothing is worse than a vasomotor rhinitis medicamentosa.

Sedatives are also of value in some cases, but many clinicians don't give them a thought now that so-called antihistamines have been placed on the market.

Which antihistamine is best suited for the patient? Will there be any side reactions? These questions are difficult to answer.

ANTIHISTAMINE THERAPY

Many publications have clearly revealed the history, chemistry, and laboratory reactions of the antihistamines. Numerous clinical papers have also been published, but unfortunately they praise the antihistamines altogether too much. It would be better if the physician could obtain from a few very thoroughly controlled studies the realization that the antihistamines should be offered with many words of caution. Common side effects are shown in Table 1.

A recent survey by the Research Department of Modern Medicine Publications has brought some interesting facts to light. The report, based on information received from 720 doctors distributed throughout the United States, reveals that treatment of the patient with hay fever rests chiefly in the hands of the general practitioner, but involves all specialists. The survey shows that thirteen different antihistaminic drugs were prescribed by the doctors questioned.

Most of the doctors used those antihistamines which were first introduced to the medical profession. There is, however, no reason why all the preparations now available should not be considered in therapy. The confusion which exists in the minds of many clinicians might then be cleared up. Some doctors feel that it is best to limit themselves to prescribing a few drugs, letting the results be what they may. Others have tried the method of rotation. This system has given better help than might be expected, but patients have sometimes thought that the doctor did not know much about what he was doing when he prescribed one antihistamine after another!

Now, however, a mass of information is pouring in to indicate that a certain pattern of approach can be followed in giving antihistamines to the hay fever sufferer. The more one studies the clinical behavior of these drugs the more one learns that they can be put to good use. The various antihistamines are listed, according to groups, in Table 2.

Group 1—The derivatives of ethylenediamine may be tried first. They

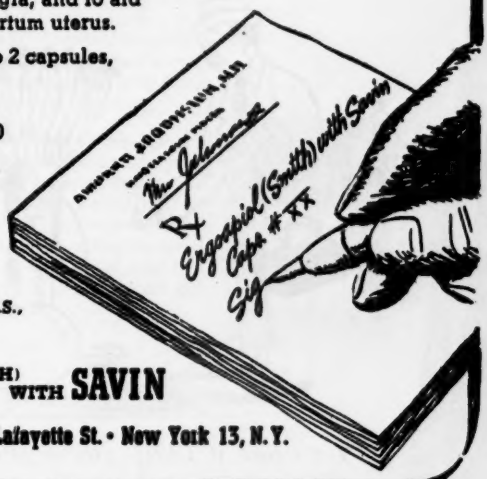
Detailed Dosage Data for Physicians

A 20-page brochure prepared exclusively for the medical profession presents busy physicians with detailed dosage information relating to quantity, frequency and duration of administration in relation to menses, as well as indications, rationale, etc., regarding ERGOAPIOL (Smith) with SAVIN. This time-tested uterine tonic is thoroughly described in this brochure, "Menstrual Disorders—Their Significance and Symptomatic Treatment". A copy, available to physicians only, will be supplied on request. Ethical since its inception, ERGOAPIOL (Smith) with SAVIN is dispensed only on your prescription.

INDICATIONS: Amenorrhea, Dysmenorrhea, Menorrhagia, Metrorrhagia, and to aid involution of the postpartum uterus.

GENERAL DOSAGE: 1 to 2 capsules, 3 to 4 times daily—as indications warrant.

In ethical packages of 20 capsules each, bearing no directions.



Ethical protective mark, M.H.S., visible only when capsule is cut in half at seam.

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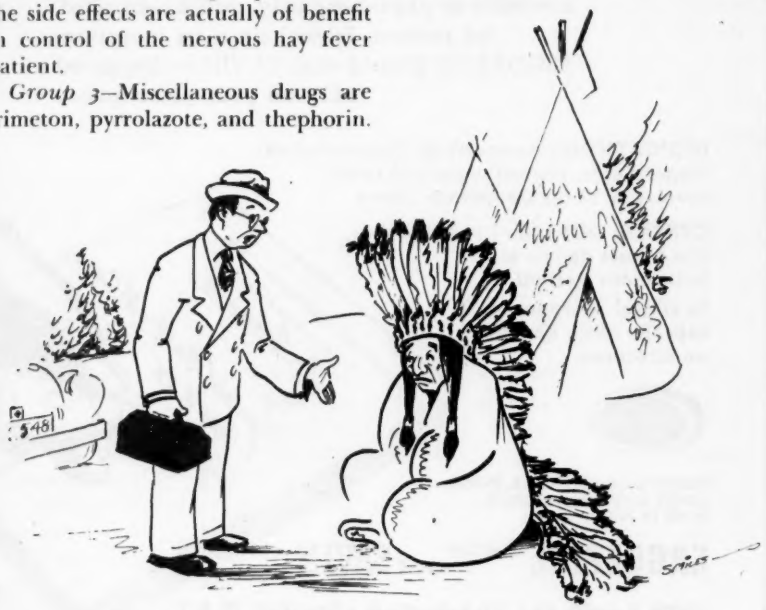
include neohetramine for rather mild symptoms, neo-antergan for moderate distress, and pyribenzamine for more severe manifestations. These antihistamines may fail to give satisfactory results, although they are relatively unlikely to cause side reactions.

Group 2—Drugs with a "thenyl ring" may then be substituted. They are thenylene, histadyl, diatrin, tagathen, and chlorothen. The chemical structure of the latter two is similar, but tagathen comes in the form of a coated tablet and the other does not. Some investigators feel that this makes a difference in the efficacy of the preparations. Studies to explore this possibility are in progress.

Mild to moderate sedation may accompany the administration of the antihistamines of this group, but often the side effects are actually of benefit in control of the nervous hay fever patient.

Group 3—Miscellaneous drugs are trimeton, pyrrolazote, and thephorin. The action of trimeton and pyrrolazote is much the same, although the former may be a little less effective and the latter produces some sleepiness. Thephorin stands alone. It gives satisfactory results in many cases but has a stimulating effect and, when taken toward the end of the day, may cause insomnia. However, the tired hay fever sufferer may respond well to thephorin during the day.

Group 4—Finally, there are the ethanolamine derivatives, namely, decapryn and benadryl with its modification called hydryllin. All are good antihistamines but they yield a rather high incidence of drowsiness. This feature is no contraindication to their use, however, since many individuals with hay fever are highly irritable and



"Let's face it Chief, you're allergic to feathers!"

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Administration of Ertron, Steroid Complex, Whittier often provides a therapeutic key to the difficult problem of arthritis. Controlled medication with Ertron, accompanied by proper adjunctive measures, generally fosters an improvement in joint function over a wider range of movement and a reduction in local swelling, stiffness and pain. Aspects of systemic improvement are evidenced in increased appetite, better nutrition and a gain in weight.

These arthrokinetic and anti-arthritic effects of Ertron stem from the Whittier process—electrical activation of heat vaporized ergosterol. Clinical improvement has been shown in more than 80 per cent of cases treated with Ertron during thirteen years of investigation.

Ertron is supplied in bottles of 50, 100 and 500 capsules, and Ertron Parenteral in packages of six 1 cc. ampuls. Each capsule contains 5 milligrams of activation-products having antirachitic activity of fifty thousand U.S.P. units. Each ampul contains activation-products having antirachitic activity of five hundred thousand U.S.P. units, in sesame oil. Biologically standardized.

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require definite sedation. Some patients, therefore, respond well to the drugs as daytime medication; others need them only at bedtime and during the night.

The antihistamines of Group 1 may be employed during the day, starting with small doses after meals. If side reactions are insignificant, the drugs can be administered before meals, often with better effect.

Drugs from Group 2 may be used both day and night.

A combination can be worked out with the antihistamines of Group 3. Thephorin is taken early in the day, and trimeton or pyrrolazote at the end.

The antihistamines of Group 4 are frequently efficacious toward the end of the day because they promote sleep.

No matter how good the effects from any one preparation, it must be remembered that complications cannot be avoided. Skin eruptions resembling atopic dermatitis have appeared. The many cases of resulting asthma have led to the great emphasis now being placed on specific pollen therapy.

POLLEN THERAPY

This form of treatment does not consist of the simple administration of a pollen extract to all hay fever patients but includes a careful study of each case to determine the cause of the disease and the best remedy.

Too many physicians fail to acquaint themselves with the pollens of their particular regions. The pollination time of the trees, grasses, or weeds, the usual amount of each pollen in the air, and the relative ability of these allergens to produce clinical symptoms should be known. This information can be obtained from reliable biologic supply organizations, botany departments of teaching centers, and allergy clinics.

Skin tests must be applied by the scratch or puncture method. All types of pollen in any given section are used in order to get a complete record of sensitivities. The reactions often reveal just how much the patient will be helped by specific therapy.

If the sensitivity is limited to ragweed and the individual is ill at the time of year when this allergen is most prevalent, pollen treatment should be satisfactory. If the tests show multiple sensitivities to trees, grasses, or weeds, and the patient has symptoms only at the time of weed pollination, the response may still be good.

Should there be minor symptoms throughout the summer with a flareup during the ragweed pollen season, specific therapy will probably not be very satisfactory no matter how carefully the procedure is carried out. For this reason, each hay fever sufferer should have a complete understanding of the value of the treatment. He should not feel that hyposensitization therapy will give perfect results.

Before the specific form of treatment for allergic diseases becomes a highly successful procedure, more must be known concerning the physical and chemical nature of the pollen extracts. In some individuals they act like a true antigen; in others, they fail to make much impression.

This indicates that everything possible must be done to promote a good antibody response. The material injected should be a fresh mixture of the pollen extracts, matching the pa-

tient's sensitivities and the degree of pollination in the community. The inoculations must follow a given schedule closely.

The preseasonal series of subcutaneous injections still tops the list in producing the most satisfactory results. Oral therapy works fairly well in some cases of grass pollen allergy if the preparation is taken in syrup before breakfast.

The coseasonal method in which very small doses of the pollen allergen are given intracutaneously appears to be tolerated by only a few individuals. The practitioner who has not had much instruction and experience concerning this procedure should not attempt it.

Even with the present inadequate knowledge as to the nature of pollen, can specific therapy be improved? The answer is in the affirmative. An eight-year study of hay fever therapy at the Minneapolis General and University of Minnesota Hospitals revealed that approximately 60% of the failures were due to *lack of cooperation on the part of the patient, the doctor's office, or both in following closely the dosage schedule, to absence of information concerning other allergies of the hay fever sufferer, and to full disregard of special rules of conduct during the hay fever season.*

It is amazing to find how large a number of patients fail to cooperate. If the patient does not keep the appointments, the doctor often makes little or no attempt to have him come

regularly. Interruptions are permitted because of reactions to inoculations, although many of these reactions can be overcome by an antihistamine.

Patients with a few clinical symptoms due to tree pollen may be greatly upset by specific ragweed pollen therapy. Too many times the physician then stops the inoculations. It would be better to explain the situation to the patient and try to control side reactions with drugs while continuing the specific treatment.

Some of the poor results are due to the fact that all the sensitivities of the individual are not known. A very young child may be sensitive to foods and an older one may have inhalant allergies.

The adult may have trouble with fungi or molds, especially in the southern parts of the United States. Measures to reduce or eliminate the offending foods from the diet or the irritating inhalants from the environment are essential, but this cannot be accomplished in an intelligent way unless a complete set of cutaneous tests has been applied. Lucky is the patient who knows his allergic picture He can conduct himself accordingly. Such a hay fever sufferer will be more willing to eat properly, rest plenty, play or work less, and avoid exposure to secondary irritants.

COMBINED THERAPY

When specific pollen therapy does not yield full satisfaction in spite of a careful and thorough check of all re-

lated procedures, antihistaminic drugs added to the treatment are sometimes helpful. In these cases, the specific treatment lowers the possibility of complications such as asthma so that the medication can be given in doses small enough to avoid side reactions.

Most distressing is the onset of asthma. This usually appears quite late in the pollen season but may come early. *The presence of asthma usually is an indication for discontinuance of antihistaminic drugs.* There are a few exceptions in which thephorin or hydryllin may be permitted.

The asthma can be mild to moderate in severity and respond well to oral administration of preparations containing racephedrine, propadrine hydrochloride, orthoxine, or ephedrine sulfate. Too often the condition becomes progressively worse, causing much suffering. Oral medication may then be of little value.

Rectal suppositories containing theophylline or aminophylline may help. The patient can become quite excited and sedation be necessary. Various preparations are available, among which is the T-Bardrin suppository (Angier), containing pentobarbital sodium, phenobarbital sodium, theophylline, ephedrine hydrochloride, and benzocaine in a cocoa butter base.

These suppositories do a good job in many cases but there are some patients who finally require intravenous therapy such as aminophylline in 5% glucose solution. Action of epinephrine is too transient to be of much value in the face of constant exposure to pollen.

Current Books & Pamphlets

This catalogue is compiled from all available sources, American and foreign, to insure a complete listing of the month's releases.

Medicine

AN ATLAS OF ELECTROCARDIOGRAPHY *by* William Dressler *and* Hugo Roesler. 503 pp., ill. Charles C Thomas, Springfield, Ill. $14

DIE PATHOLOGISCH-ANATOMISCHEN GRUNDLAGEN DER ALLERGIE *by* W. Eickhoff. 95 pp., ill. Georg Thieme, Stuttgart. 8.40 M.

KLINISCHE INFEKTIONSLEHRE *by* F. O. Höring. 2d ed. 245 pp. Julius Springer, Berlin. 18 M.

DEGENERATIVE NIERENERKRANKUNGEN *by* Hansjürgen Oettel. 328 pp. ill. Georg Thieme, Leipzig. 32 M.

DIAGNOSTISCH-THERAPEUTISCHER LEITFADEN DER INNEREN MEDIZIN FÜR DIE ARSTLICHE SPRECHSTUNDE *by* Felix O. Höring. 259 pp. Ferdinand Enke, Stuttgart. 10.80 M.

THE NOMENCLATURE OF DISEASE. 7th ed. 385 pp. His Majesty's Stationery Office, London. 8*s.* 6*d.*

RATIONAL MEDICINE *by* J. W. Todd. 378 pp. Simpkin Marshall, London. 25*s.*

Anesthesia

ANAESTHETICS AND THE PATIENT *by* G. Ostlere. 166 pp. Sigma Books, London. 7*s.* 6*d.*

Ophthalmology

PRACTICAL ORTHOPTICS IN THE TREATMENT OF SQUINT *by* Thomas Keith Lyle *and* Sylvia Jackson. 3d ed. 272 pp., ill. H. K Lewis & Co., London. 35*s*.

HISTOLOGY AND HISTOPATHOLOGY OF THE EYE AND ITS ADNEXA *by* I. G. Sommers. 784 pp., ill. Grune & Stratton, New York City. $12

EINFÜHRUNG IN DIE PHYSIOLOGISCHE OPTIK *by* Armin von Tschermak-Seysenegg. 2d ed. 213 pp., ill. Springer, Vienna. 45 Sch.

Tuberculosis

PULMONARY TUBERCULOSIS: PATHOLOGY, DIAGNOSIS, MANAGEMENT AND PREVENTION *revised by* Walter Pagel *et al.* 2d ed. 738 pp., ill. Oxford University Press, New York City. $18.50

PRESENT CONCEPTS OF REHABILITATION IN TUBERCULOSIS *by* Norvin C. Kiefer. 398 pp. National Tuberculosis Association, New York City. $3.50

TUBERCULOSIS OF THE KNEE JOINT *by* Johannes Mortens. 550 pp. Einar Munksgaard, Copenhagen. 30 Kr.

Orthopedics

ÜBER DIE PRINZIPIEN DER MECHANISCHEN GLIEDERHEILKUNDE *by* H. Schubjé. 84 pp., ill. Georg Thiem, Leipzig. 8 M.

L'AXE CORPOREL, MUSCULATURE ET INNERVATION: ÉTUDE ANATOMIQUE, PHYSIOLOGIQUE ET PATHOLOGIQUE *by* André Thomas *and* J. de Ajuriaguerra. 538 pp., ill. Masson & Co., Paris. 1,650 fr.

TUMORS OF BONE *by* Charles F. Geschickter *and* Murray M. Copeland. 3d ed. 810 pp., ill. J. B. Lippincott Co., Philadelphia. $17.50

Cancer

CANCER, VOLUME II: RADIATIONS, VIRUS, ENVIRONMENT *by* J. Maisin. 308 pp. Casterman, Tournai-Paris. 120 fr.

Gynecology

TECHNIQUES CHIRURGICALES VAGINALES: POSSIBILITÉS ET LIMITES *by* Eric Weber. 144 pp., ill. J. B. Baillière & Fils, Paris. 500 fr.

Psychiatry

SOME COMMON PSYCHOSOMATIC MANIFESTATIONS *by* J. Barrie Murray. 114 pp. Oxford University Press, New York City. $2.50

DIAGRAMS OF THE UNCONSCIOUS: HANDWRITING AND PERSONALITY IN MEASUREMENT, EXPERIMENT AND ANALYSIS *by* Werner Wolff. 423 pp., ill. Grune & Stratton, New York City. $8

Pharmacology

PENICILLIN AND OTHER ANTIBIOTICS *by* G. W. S. Andrews *and* J. Miller. 160 pp., ill. Todd Publishing Group, London. 7*s.* 6*d.*

THE CHEMISTRY OF PENICILLIN *edited by* Hans T. Clarke *et al.* 1,094 pp., ill. Princeton University Press, Princeton, N. J. $36

HANDBOOK OF MATERIA MEDICA, TOXICOLOGY AND PHARMACOLOGY *by* Forrest R. Davison. 4th ed. 730 pp., ill. C. V. Mosby Co., St. Louis. $8.50

THE PLANT ALKALOIDS *by* Thomas A. Henry. 4th ed. 828 pp. Blakiston Co., Philadelphia. $12

THE USE OF PENICILLIN AND STREPTOMYCIN *by* Chester S. Keefer. 72 pp. University of Kansas Press, Lawrence, Kan. $2

AUREOMYCIN: A NEW ANTIBIOTIC, WITH PAPERS *by* B. M. Duggar *et al.* 168 pp., ill. New York Academy of Science, New York City. $2.50

Legal Medicine

TAYLOR'S PRINCIPLES AND PRACTICE OF MEDICAL JURISPRUDENCE, VOLUME II *edited by* Sir S. Smith. 10th ed. 841 pp. J. & A. Churchill, London. 50*s.*

Venereal Diseases

GLANDES ENDOCRINES ET SYPHILIS: SCHÉMAS CLINIQUES ET THÉRAPEUTIQUES *by* Paul Blum. 109 pp. Masson & Co., Paris. 250 fr.

Nursing

PRINCIPLES OF PSYCHIATRIC NURSING *by* Madelene Ingram. 3d ed. 525 pp., ill. W. B. Saunders Co., Philadelphia. $3.75

EYE, EAR, NOSE AND THROAT MANUAL FOR NURSES *by* Roy H. Parkinson. 6th ed. 259 pp., ill. C. V. Mosby Co., St. Louis. $3

Miscellaneous

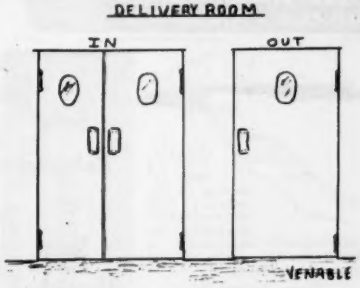
PHYSICAL ASPECTS OF COLOUR *by* P. J. Bouma. 312 pp., ill. Elsevier Book Co., New York City. $5.50

WHAT IS THE LEADING CAUSE OF DEATH? TWO NEW MEASURES *by* Frank G. Dickinson *and* Everett L. Walker. 25 pp. American Medical Association, Chicago. Apply

MEDICAL LATIN *by* Carolyn Lewis. 135 pp. Marshall Jones Co., Francestown, N.H. $2

GERMAN-ENGLISH DICTIONARY *by* F. S. Schoenewald. 241 pp. H. K. Lewis & Co., London. 27*s.* 6*d.*

DOCTORS OF INFAMY: THE STORY OF THE NAZI MEDICAL CRIMES *by* Alexander Mitscherlich *and* Fred Mielke. 172 pp., ill. Henry Schuman, New York City. $3



Medical Films

Pertinent information concerning new releases on medical subjects and other recent films that are still available.

New Releases

MEDICINE. The following films available for sale from Castle Films, Division of United World Films Inc., 1445 Park Ave., New York 29:

CLINICAL MALARIA, 26 min.; EVALUATION OF PHYSICAL FITNESS BY THE STEP-UP TEST, 12 min.; SPECIFIC GRAVITY OF THE HEALTHY MAN, 16 min.; LIFE CYCLE OF ENDAMOEBA HISTOLYTICA, 19 min. silent, color; MOLES AND MELANOMA, 7 min. color; ACTION OF THE EXTRA-OCULAR MUSCLES, 8 min. color; PREPARATION AND USE OF HUMAN PLASMA, 34 min. color; HEMOLYTIC STREPTOCOCCUS CONTROL, 13 min.

SURGERY. The following films available for sale from Castle Films, Division of United World Films Inc., 1445 Park Ave., New York 29:

FRACTURE OF THE SURGICAL SPINE: CRUTCHFIELD TONGS REDUCTION 11 min. silent, color; SKELETAL FIXATION BY THE STADER SPLINT: FRACTURES OF THE TIBIA, 22 min.; SKELETAL FIXATION BY THE STADER SPLINT: FRACTURES OF THE OS CALSIS, 12 min.; EYE SURGERY: TREATMENT FOR PARESIS OF THE SUPERIOR OBLIQUE, 7 min. color; EYE SURGERY: REMOVAL OF INTRAOCULAR FOREIGN BODIES, 22 min. color; EYE SURGERY: FIELD MANAGEMENT OF EYE INJURIES, 20 min. color; EARLY CARE OF PLASTIC SURGICAL CASES: WOUNDS OF THE HAND, 14 min. color; EARLY CARE OF PLASTIC SURGICAL CASES: WOUNDS OF THE FACE AND JAW, 19 min. color; AMPUTATIONS: GUILLOTINE AMPUTATIONS OF THE LOWER EXTREMITY, 12 min. color; AMPUTATION: REVISION AND REAMPUTATION OF THE STUMP, 29 min. color; AMPUTATION: THE UPPER EXTREMITY, 15 min. color; PLASTIC SURGERY OF THE HAND, 12 min. color; PLASTIC AND RECONSTRUCTION SURGERY OF THE HAND, 22 min. color; PLASTIC REPAIR OF THE CHEEK AND LIP, 10 min. color; SCIATIC PAIN AND THE INTERVERTEBRAL DISC, 33 min. color; SURGICAL MANAGEMENT OF SPINAL CORD INJURIES, 8 min. color; FACIAL INJURIES, 12 min. color; CARE OF THE FEET, 10 min. color.

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. . . I Have Met

The editors will pay $1 for each story published. No contribution will be returned. Send your experiences to the Patients I Have Met Editor, MODERN MEDICINE, 84 South Tenth St., Minneapolis 3, Minn.

Adequate Answer

"What," asked the professor, "is the chief difference between male and female?"

"Vas deferens," answered the bright student.—W.H.

"I've got Bright's disease," said the nurse, "and he's got mine."—D.S.

Caveat Emptor

A young man was approached by a lovely lady who said in a hushed voice, "I'm selling."

The young man took one look and sighed, "I'm buying."

A few days later he had a penile drip. Weeks went by. Then the same woman reappeared and again said, "I'm selling."

"What is it now" was the brusque retort, "cancer?"—W.H.

"They're not twins. They just have the same plastic surgeon!"

"What do you keep in there? Golf balls?"

Solar System

After examining a child, I told the mother that a lot of sun was desirable and advised her to sun the baby, front and back, as much as she could. Several days later the mother called to ask if she couldn't sun the baby just in the back. She was plum fagged out, she said, from carrying the child to and fro from the backyard to the frontyard and back. —C.B.S.

The O.B. patient was nearing term and I asked her how she felt. "Doctor," she replied," it's like building a boat in the basement. As it progresses you wonder how you are going to get it out."

Nothing Common

In checking over reports on surgical specimens for the day the pathologist picked up a rare one, "cervical ass." He called his typist and asked if it was a typographical error.

"Oh no," she answered, "that is what you said."

"What I said," he replied, "was cervical *os*."

"Well, I thought you were being high hat," retorted the girl.—A.G.

"We have never had other iron salts so efficacious..."[1]

In the treatment of hypochromic anemia the new molybdenum-iron complex, Mol-Iron, is being found to possess *marked advantages* over equivalent dosage of ferrous sulfate alone, or combined with liver-stomach extract or folic acid.

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1. Dieckmann, W. J., and Priddle, H. D.: American J. Obstet. & Gynec. *57*:541-546 (March) 1949.
2. Chesley, R. F., and Annitto, J. E.: Bull. Margaret Hague Maternity Hospital *1*:68-75 (Sept.) 1948.
3. Healy, J. C.: Journal-Lancet *66*:218-221 (July) 1946.
4. Talso, P. J.: J. Ins. Med. *4*:31-34 (Dec.-Jan.-Feb.) 1948-1949.

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Optical Illusion

A patient of mine took her bifocal prescription to a dispensing optician. When she got her glasses she asked if the price included $2.50 for the doctor. Told that it did not, she pointed to the prescription where it said, "Add 2.50." It took some time to explain the meaning of a presbyopic addition.—B.W.

"Did you carve it yourself?"

Compression

"You have the next hour," the English professor told his class, "to write a short story containing religion, sex, royalty, and mystery."

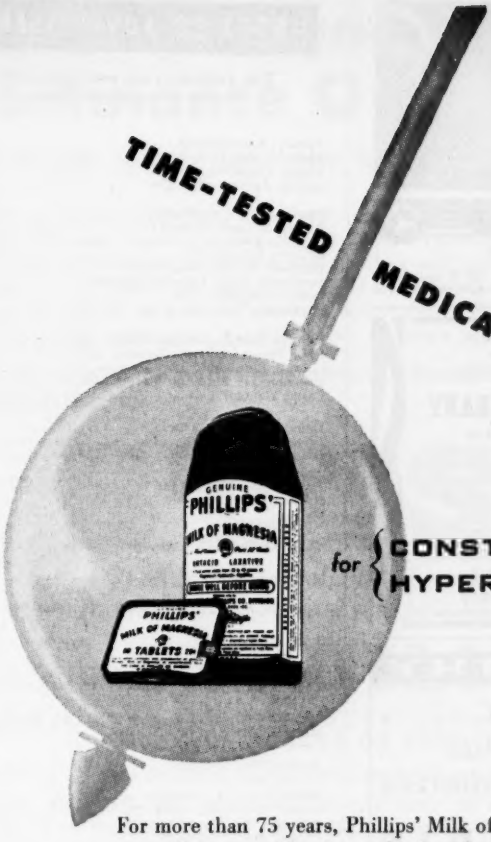
Within a few minutes the pre-med had his story ready: "My God!" exclaimed the king, "The princess is pregnant. Who done it?"—C.A.C.

"How is the patient who swallowed the half dollar?" asked the doctor. "No change yet, sir," replied the nurse.—M.C.

Once Was Enough

The examination of a woman complaining of amenorrhea of short duration was essentially negative. I suggested she could be pregnant, a suggestion she promptly denied. I explained that even though she had been married for several years, pregnancy was a normal possibility.

"Oh no," she answered. "We have a daughter six years old, and we found out what caused that!"—J.D.B.



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